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Products, News & Information Data Centers Can Trust. Since 1979

No Backup Window Here

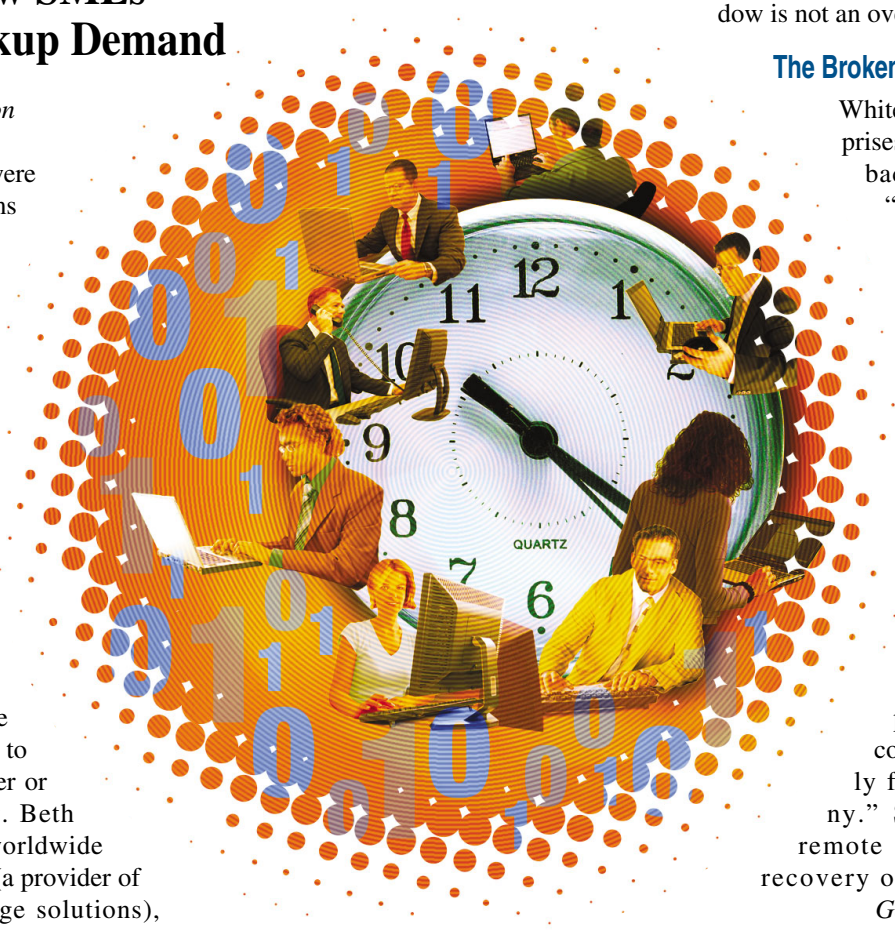
A Lesson On How SMEs Handle The Backup Demand

by Chris A. MacKinnon

• • •

Remember when backups were done every so often? It seems like yesterday. (Those were the good old days.) Due to exploding data capacity requirements, today's global enterprises do not have room for a backup window, much less a shrinking backup window. And what's more, Gartner analysts have predicted that by 2012, there will be 30 times more data than there was earlier this decade.

With the Internet and nonstop access to enterprise data, no time is a good time to have anything running slower or with limited functionality. Beth White, vice president of worldwide marketing for Data Domain (a provider of Capacity Optimized Storage solutions), says the fact that there is no backup window is not an overstatement.



The Broken

White says multinational enterprises are in a constant state of backing up data. She says, "They mitigate the situation through a variety of backup strategies and processes. Daily incremental backups and weekly full backup practices are common in a single location, but hourly backups of constantly changing mission-critical data, such as transactional database data, are very common as well. Different data types are chosen to be backed up at different points in time. Plans can be complex and can vary greatly from company to company." She says processes for remote replication for disaster recovery of data and applications

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Voice Is So Old School

Today's Cell Phones Make Powerful Data Tools, Too

by David Garrett

• • •

They used to be toys. Now they're fabulous tools. Today's cell phones, smartphones, and voice-ready PDAs merge the power of enterprise apps with real mobile broadband, making them palm candy for any end user. They can plug into Exchange, Notes, and VPNs at breakneck speed, not to mention most CRM and back office apps. And they still offer all the Word, Excel, PowerPoint, PIMs (personal information managers), MP3 players, voice notes, ebooks, and podcasts they always have.

So it's no wonder that users are begging for minimarvels like never before. But with so many features, how do you choose the right device? What's best?

Getting Connected

Recent cell phones and converged PDAs have the same connection options as in the past, including Wi-Fi and GPRS (General Packet Radio Service). But Wi-Fi only works if you're close to a hotspot, and GPRS is slow.

More promising are the new forms of mobile broadband, such as EDGE networks from T-Mobile and Cingular. EDGE (Enhanced Data GSM Environment) offers downloads up to 384Kbps, which is fast enough for heavy email or basic Web surfing. (T-Mobile's EDGE plans also come with a perk: free Wi-Fi access at T-Mobile hotspots, including Starbucks, Borders, FedEx Kinko's, and T-Mobile stores.)

But if you want the Cadillac of mobile broadband, Sprint and Verizon offer EVDO, short for Evolution Data Optimized. It hits speeds up to 2Mbps, but it's also expensive: Most EVDO plans cost double the price of EDGE. Cingular offers an HSDPA (High Speed Downlink Packet Access) service under the name of BroadbandConnect; it rivals EVDO for speed and price.

No matter which option you choose—Wi-Fi, GPRS, EDGE, EVDO, or HSDPA—you can

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One Device, Please

IT departments often give handhelds scant attention, leaving end users to choose their own tools. The result? Too many platforms, too many models, and too many problems to manage. If your workforce needs a mobile solution, be sure to standardize on one platform, choosing as few models as possible. It cuts the learning curve and cuts down on support calls because users can share their war stories with one another. You might even get a better price if you buy in bulk.

In This ISSUE

COVER FOCUS

Backup & Restore

In today's enterprise, there's no such thing as a shrinking backup window. With nonstop access to enterprise data, there's often little to no backup window. How are small to midsized enterprises dealing with this? What new strategies and tools are available to help?

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Reducing Patch Time | 28

Patching has grown to become a focal point of the overall security and integrity of the network, and many companies have dedicated employees, or even teams, assigned to evaluating and deploying patches as quickly as possible.

Dark Data Center Design| 29

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■ **Accusys** released the ACS-77100 (SATA-SATA) and ACS-77101 (USB/Firewire-SATA) RAID controllers. ■ **CRYPTOCard** launched the latest version of its CRYPTO-Server for desktop, network, LAN, and Web server authentication. ■ **Exabyte** is targeting SMEs and remote office users with its Magnum 448 LTO Tape Library. ■ **Iomega** announced the availability of two high-capacity portable hard drives with host-powered operation and Drop Shock Technology. ■ **Pelican** announced the new 1080 HardBack Case designed to protect 13-inch laptops while traveling.

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1. What is the size of your company (how many employees)?

- ☐ Less than 10
- ☐ 10 - 99
- ☐ 100 - 199
- ☐ 200 - 499
- ☐ 500 - 999
- ☐ 1,000+

2. How often do you purchase computer hardware/software?

- ☐ Weekly
- ☐ Bi-weekly
- ☐ Monthly
- ☐ Quarterly
- ☐ Annually
- ☐ No Involvement

3. What is your annual computer hardware/ software purchasing budget?

- ☐ $0 - $9,999
- ☐ $10,000 - $24,999
- ☐ $25,000 - $49,999
- ☐ $50,000 - $99,999
- ☐ $100,000 - $249,999
- ☐ $250,000 - $499,999
- ☐ $500,000 - $999,000
- ☐ $1,000,000+

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Upcoming IT Events

- SEPTEMBER -

Data Center World
September 10-13
Orlando, Fla.
www.datacenterworld.com
Visit *Processor* at Booth 512

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HP Technology Forum 2006
September 17-21
Houston, Texas
www.hptechnologyforum.com

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COMMON Fall 2006 Conference
September 17-21
Miami Beach, Fla.
www.common.org/conferences/2006/fall/index.html

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Interop
September 18-22
New York, N.Y.
www.interop.com/newyork
Visit *Processor* at Booth 568

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IT Service Management Forum Conference & Expo
September 18-22
Salt Lake City, Utah
www.jupiterevents.com/itsmf/fall06

• • • • •

Business Rules Symposium Series
September 19-20
Washington, D.C.
www.brainstorm-group.com

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Enterprise Architecture Conference Series
September 19-20
Washington, D.C.
www.brainstorm-group.com

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Government Technology Conference East 2006
September 25-28
Albany, N.Y.
www.govtech.net/gtc/index.php/GTCEast2006

• • • • •

Intel Developer Forum
September 26-28
San Francisco, Calif.
www.intel.com/idf

- OCTOBER -

IT Expo
October 3-4
Anchorage, Alaska
www.sourdough.net

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Gartner Symposium/ITxpo
October 8-13
Orlando, Fla.
www.gartner.com

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Internet Telephony Conference & Expo West
October 10-13
San Diego, Calif.
www.tmcnet.com/voip/conference

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ASCDI Fall
October 18-21
Toronto, Canada
www.ascdi.com

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Chicago ITEC 2006
October 18-19
Chicago, Ill.
www.goitec.com

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InfoSecurity
October 23-25
New York, N.Y.
www.infosecurityevent.com

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Data Center Decisions
October 25-26
Chicago, Ill.
www.datacenterdecisions.com

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Kansas City ITEC 2006
October 25-26
Kansas City, Kan.
www.goitec.com

- NOVEMBER -

Atlanta ITEC 2006
November 1-2
Atlanta, Ga.
www.goitec.com

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FS/TEC
November 5-8
Long Beach, Calif.
www.fstec.com

MarketPlace NEWS

Apple Recalls Laptop Batteries

Following soon after Dell's recall of 4.1 million notebook batteries, Apple announced a recall of 1.8 million batteries that use Sony's battery cell technology (the same technology used in Dell's recalled batteries). According to the Consumer Products Safety Commission, the recall affects the iBook G4 and PowerBook G4 laptop models, which were sold between October 2003 and August 2006. While no serious injuries have been reported, Apple has received nine reports of batteries overheating with two of those users reporting minor burns and property damage. For more information on the recall, visit support.apple.com/ibook_powerbook/batteryexchange/index.html.

IBM Makes Security Purchase

IBM announced plans to purchase Internet Security Systems for $1.3 billion in cash. ISS develops products and services designed to protect enterprises from Internet security threats. By purchasing ISS, IBM plans to offer additional security-related services to its enterprise customers either through consulting or hosted services. In the past month, IBM has announced plans to purchase three other companies in addition to ISS: MRO Software, makers of software for managing industrial equipment; Webify Solutions, which specializes in life cycle management; and FileNet, which creates content management software. The ISS acquisition should be finalized during the fourth quarter.

Intel Chipset Shortage

After rival microprocessor manufacturers Advanced Micro Devices and Intel cut their desktop chip prices in July, customers' demand for PCs shot up. But the boost has led to a shortage of several Intel chipsets, especially those in the 965 chipset line, which Intel rolled out in June; the chipsets G965, P965, and Q965 are used in mainstream desktop PCs. Analysts predict the trouble could continue if demand keeps increasing, as a chipset takes a number of weeks to reach its final production stage.

Google Maintains Lead As Top Search Tool

According to market research firm comScore Networks, Google continues to be the most-used search engine in the United States, with a 43.7% share of all searches performed in July. However, comScore says, the search giant did experience a drop of 1%, marking the first decrease in market share following a full year of continuous growth. Meanwhile, No. 2 Yahoo! saw a 0.3% increase from June to July, topping out at 28.8%, while market share for Microsoft MSN stayed steady at 12.8%.

Cisco Buys Arroyo

In a move to help it prepare for the growing market for on-demand TV viewing, networking equipment maker Cisco has announced plans to buy Arroyo Video Solutions for $92 million. Arroyo is a small software startup with offices in California and Utah and has developed software aimed at helping phone companies and cable operators offer more flexible video-on-demand services. The purchase of Arroyo follows Cisco's acquisition of Scientific-Atlanta, which has made it a player in the video infrastructure industry.

Jump In Blade Server Sales In Q2

According to Gartner, the overall blade server market saw shipments grow 9% in the second quarter, spurred by a hike of 61.4% in Q2 server shipments in Europe, the Middle East, and Africa. Behind HP (currently in the No. 1 position), IBM surpassed Dell to take over the second-place spot, selling roughly 1,000 servers more. But although shipments for Q2 were up, Gartner says server revenue was $3.9 billion, down 0.1% from this time a year ago.

Former eMachines Owner Makes Gateway An Offer

Former owner of eMachines and current owner of Joui International, Lap Shun Hui, announced last week that he has placed a bid of $450 million to buy retail operations from Gateway. Hui made the offer through a letter to Gateway's board. In addition to the $450 million, he offered to look into buying all outstanding shares in the entire company. The day following the receipt of Hui's letter, Gateway released a statement saying its board of directors would review the offer.

U.S. Renews ICANN Contract

Despite international opposition and years of the U.S. government saying it intends to hand over control of ICANN (Internet Corp. for Assigned Names and Numbers), the government renewed its contract with the organization until 2011. The move was expected, however, because last summer the Department of Commerce announced its intent to retain control over authorized top-level domains. ICANN, which oversees the assigning of Internet addresses, also operates under a memorandum of understanding outlining ICANN tasks such as establishing new top-level domains and maintaining registry information. The memorandum was designed to aid in the eventual shift away from U.S. control.

More Departures In Wake Of AOL Data Leak

Three employees have departed AOL as a result of the intentional release of information relating to the search terms used by more than 650,000 AOL subscribers. Maureen Govern, AOL's CTO; the unidentified researcher who released the information; and that employee's supervisor have either left AOL or been fired. The information, which substituted numbers for subscriber usernames but still contained enough personally identifiable information to trace it to an individual user, was meant for researchers but was released on a public site and then circulated. The AOL researcher reportedly did not obtain proper security clearances before releasing the data.

Open-Source Startup Receives Funding

San Francisco-based MuleSource will formally launch this month after receiving $4 million in funding from Hummer Winblad Venture Partners and Morgenthaler Ventures. The company creates Mule software, which was originally developed three years ago and works as an enterprise service bus to help applications communicate with each other. The company, which has seven employees, will sell subscriptions for software support.

Google & eBay Team Up On Non-U.S. Ads

Internet giant eBay will start using Google exclusively for its advertisements outside the United States. This follows on eBay's announcement in May that it would be using Yahoo! for all its ads within the United States. Analysts say eBay has decided to use both Yahoo! and Google because of the companies' respective strengths in different advertising arenas. Google will also be working with eBay in a new "click-to-call" advertising venture that will let customers click a Web-phone link and be able to talk directly to a customer service representative.

Vista Takes Another Step Forward

Some corporate testers have received an interim test version of Windows Vista, and soon certain tech enthusiasts will join the program. Microsoft says it's planning to launch a "release candidate" test version of its newest OS later this month. Until then, a more modest test version (build 5536.16385) has been distributed to businesses in its Technical Adoption Program, as well as members of Microsoft's TechBeta tester pool and MSDN developer network.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	August 21 $	August 28 $	% change from previous week
Avaya	AV	$10.02	$10.30	$10.17	▼ 1.26%
BEA Systems	BEAS	$8.92	$12.94	$13.34	▲ 3.09%
Computer Associates	CA	$26.24	$23.57	$23.66	▲ 0.38%
Cisco Systems	CSCO	$17.52	$20.80	$21.41	▲ 2.93%
Dell	DELL	$35.38	$21.80	$22.21	▲ 1.88%
Electronic Data Systems	EDS	$22.10	$23.62	$23.48	▼ 0.59%
Google	GOOG	$282.57	$377.35	$380.95	▲ 0.95%
HP	HPQ	$26.72	$35.22	$35.28	▲ 0.17%
IBM	IBM	$81.32	$78.97	$80.32	▲ 1.71%
Intel	INTC	$25.53	$18.17	$19.38	▲ 6.66%
McAfee	MFE	$31.44	$21.19	$22.30	▲ 5.24%
Microsoft	MSFT	$26.81	$26.07	$25.95	▼ 0.46%
Oracle	ORCL	$12.95	$15.73	$15.54	▼ 1.21%
Red Hat Software	RHAT	$13.85	$24.72	$24.56	▼ 0.65%
Sun Microsystems	SUNW	$3.59	$4.69	$4.92	▲ 4.90%
Symantec	SYMC	$20.15	$18.18	$19.19	▲ 5.56%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

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Big Networks Go Wireless

Taking A Look At Wireless MAN/WAN Equipment

by Sandra Kay Miller

• • •

GARTNER PREDICTED that in 2005, 65% of Fortune 2000 companies would adopt mobile applications. In turn, those moves are driving sales for wireless WAN/MAN (metropolitan-area network) infrastructure.

Networking giant Cisco attributes the $1.5 billion of net income last quarter in part to the sales of more than 3 million wireless access points.

Aaron Vance, senior analyst at Synergy Research Group, attributes sales of enterprise wireless infrastructure, such as access points, switches, and controllers, to an increase of application deployments such as mobile VoIP and location services.

No Longer Niche

Two years ago, IDC only considered wireless MAN technologies (the IEEE standard 802.16e known as WiMAX) to be a niche market through 2008. Additionally, IDC pointed out in its report, "802.16e – Blurring the Line Between Fixed and Mobile, But Still Facing Many Challenges," that vendors have also begun using mobile technology to deliver fixed services such as last-mile wireless broadband connections.

However, in IDC's market analysis report released earlier this year, Allen Leibovitch, IDC's director of Communications and Consumer Semiconductors says, "If all goes well, 2006 could be remembered as the year WiMAX became real. More fixed WiMAX networks will come online, and true mobile WiMAX trials will commence."

Flexibility

One of the key advantages emerging in the wireless WAN/MAN markets is flexibility in both installations and the products themselves. Wireless WAN/MAN deployments can be utilized for broadband Internet access, landline and cellular telephone bypass, and cable and satellite television bypass.

Wireless WAN/MAN infrastructure can deliver fixed point-to-point as well as fixed point-to-many mobile points. Wireless technologies are also emerging that can bridge and supplement other communication technologies (serial, cellular) into WAN/MAN installations.

Additionally, wireless access points deliver much more than just an RF signal. Many enterprise units operate in multiple modes—access point, bridge, wireless distribution system, wireless monitoring system, and as a router. This level of multifunctionality provides not only the ability to streamline WAN/MAN infrastructure but also can contribute to overall cost savings.

The foundation for any wireless WAN/MAN installation is the access points. Let's take a look at some of the leading solutions available today.

D-Link

The AirPremier AG DWL-7200AP Wireless Access Point from D-Link delivers dualband multimode networks (2.4GHz and 5GHz) simultaneously. The units support PoE, so ideal placement isn't hampered by electrical availability. The AP ships with a 5dBi high-gain antenna but has the availability to easily switch to a more powerful antenna if more signal strength is required.

With security near the top of any administrator's list when it comes to wireless technologies, the DWL-7200 AP offers strong wireless security through WPA, AES encryption, MAC address filtering, segmentation, and the ability to disable the SSID broadcast.

DWL-7200 AP delivers outstanding flexibility with the capacity to function in any one of five modes: access point, point-to-point, point-to-multipoint bridge, repeater, or as an access point client. The unit can be managed via a Web-based configuration utility or with Telnet. D-Link also offers AP Manager and D-View SNMP management software for advanced centralized administration.

SNAPSHOT

D-Link AirPremier AG DWL-7200AP Wireless Access Point

$279.99

This 802.11a/b/g wireless access point also works as a point-to-point bridge, point-to-multipoint bridge, and a repeater

www.Processor.com/AirPremier

Digi International

WANs consist of more than just 802.11 signals. Cellular services play a huge role in WAN/MAN installations. Digi International's ConnectPort WAN VPN is the first enterprise-class 3G cellular router providing secure wireless broadband network connectivity.

Recognizing the speed at which WAN/MAN technologies are growing, Digi has designed the ConnectPort with an upgradeable platform, so customers can easily migrate to emerging standards through supported Type 2 PCMCIA Card slots or PCI Express modules, two RS-232 serial ports for legacy COM devices, and an onboard 4-port 10/100 Ethernet switch for connecting additional TCP/IP network devices. ConnectPort WAN also supports both CDMA EvDO and GSM HSDPA/UMTS 3G networks.

ConnectPort delivers broadband connectivity to enterprises with remote sites and devices or as a reliable backup to landline communication systems in sectors such as utilities, industrial automation, POS/retail, financial (ATMs), traffic, medical, and video surveillance.

SNAPSHOT

Digi International ConnectPort WAN VPN

Starts at $500

Upgradeable, commercial-grade 3G cellular router offering secure high-speed connectivity for wireless broadband network connectivity

www.Processor.com/Digi

ZyXEL

Not all WAN/MAN AP installations are located within the protective confines of indoors. To meet the demands of harsh outdoor environments, ZyXEL's ZyAIR B-5000 offers both ruggedness and versatility. PoE support and an integrated surge arrester help make the B-5000 ideal for outdoor installations.

SNAPSHOT

ZyXEL ZyAIR B-5000 Outdoor Wireless Access Point/Bridge

$895

Ideal for harsh outdoor environments; offers speed and stability both as an 802.11b access point or as a wireless bridge between locations

www.Processor.com/ZyAir

The unit doubles as a high-powered wireless AP as well as a wireless bridge for linking long-range, point-to-point nodes such as between buildings in a MAN deployment. For security, the ZyAIR B-5000 supports WEP, 802.1x, and RADIUS authentication.

Cisco

No look at wireless WAN/MAN products would be complete without talking about Cisco's Aironet 1300 Series Outdoor Access Point/Bridge. Similar to the ZyAIR B-5000, the 1300 Series was designed to withstand the rigors of the environment.

A popular choice for campus networks, public and private networks in outdoor areas, and portable temporary networks, the

SNAPSHOT

Cisco Aironet 1300 Series Outdoor Access Point/Bridge

$983

Ruggedized design configurable for use as an access point, bridge, or workgroup bridge; 802.11b/g device offers 54Mbps with enhanced security mechanisms

www.Processor.com/Aironet

1300 Series works as an AP, a bridge, or workgroup bridges delivering a 54Mbps data rate using the 802.11b/g standards for both point-to-point or point-to-multipoint postures.

The Aironet 1300 Series is built on the IOS operating system and offers advanced features such as fast, secure Layer 2 roaming, QoS, and VLANs.

Proxim

Specifically designed for large production public safety and MANs, Proxim's ORiNOCO AP-4000M Access Point packs four modes (4.9GHz and 802.11a/b/g) into a single PoE-capable unit. Also setting the 4000M apart from similar products are expanded memory, integrated IDS/IPS, and prestandard 802.11e QoS support for latency-sensitive applications.

ORiNOCO doesn't skimp on security either. The 4000M supports leading-edge security standards (802.11i, AES) along with dynamic per-user, per-session rotating keys, rogue AP and client identification, and ad hoc blocking all managed through secured interfaces using SSL (Secure Sockets Layer), SSH, and SNMPv3.

For centralized configuration and administration, the Proxim Wavelink Mobile manager provides easy updates and automatic alerts. The 4000M can also be remotely managed through HTTP, Telnet, and SNMP.

For applications using real-time computer-aided dispatching, VoIP, live streaming video, and data networks for emergency responders, the 4000M provides a solid delivery of 2.4GHz and 4.9GHz coverage on a single, dual-radio platform.

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www.Processor.com/ORiNOCO

MAPs, from Colubris Networks offer a flexible, secure, and scalable solution.

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When it comes to building a WAN/MAN, the possibilities are endless and, fortunately, so are the combinations in which this highly flexible and multipurpose equipment can be installed.

SNAPSHOT

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Buying Tips

Jason Sprayberry, product marketing manager at Digi International, points out some key points to keep in mind when planning to purchase equipment for a MAN/WAN implementation.

- **Make sure the product is upgradeable.** With the lightning pace at which the wireless industry is moving, be certain that the equipment can be easily upgraded instead of having to be entirely replaced.
- **Choose a commercial-grade product.** Consumer-class products often lack the rich features that enterprise-class products offer.
- **Ensure the product has the features to meet your needs.** Take inventory of the features needed such as PoE, number of ports/connections, etc.
- **Examine management capabilities.** Especially in large, distributed environments, there needs to be a way to centrally manage wireless infrastructure. Sprayberry says that many enterprise management systems such as HP OpenView (www.hp.com), Tivoli (www.ibm.com), and WhatsUp Gold (www.ipswitch.com), do not have the capacity to handle issues unique to wireless MAN/WAN deployment.

To see *Processor* Showcase advertisements for products in this category, look in the Showcase Index on page 5 and find the Wireless WAN & MAN ads under Communications/Wireless.

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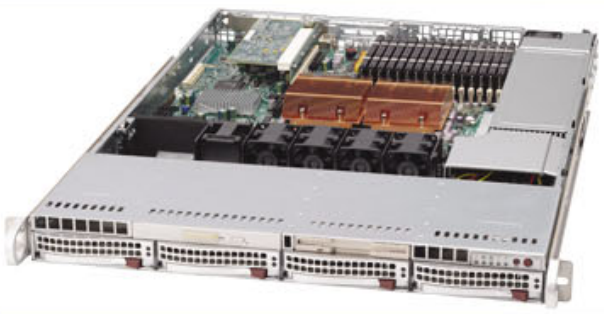

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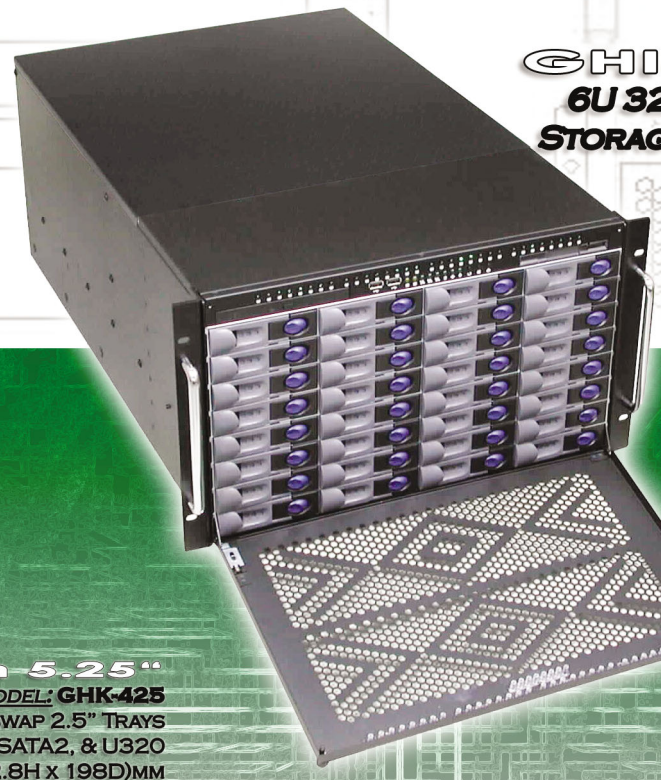

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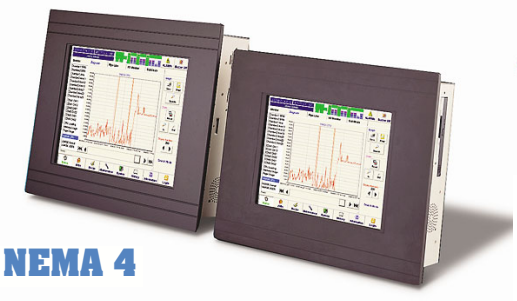

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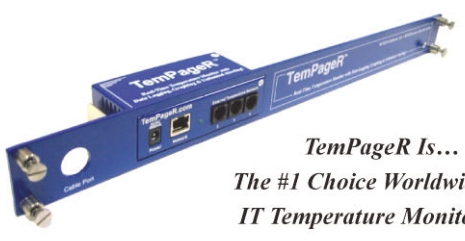

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Handling The Remote

With Planning, Backing Up Data From Multiple Offices Is More Than Manageable

by Elizabeth Millard

• • •

As many enterprises have found, "the office" just isn't the office anymore, thanks to telecommuting, branch offices, and offsite data centers. Employees can be spread over several states, or even different countries, boosting productivity and company visibility but also presenting challenges for IT.

A significant issue has become how to back up all that data being created at separate locations and do it in a way that's cost-effective, automated, and dependable. Also, once the data is backed up, it has to be stored, and many small to midsized enterprises have discovered that keeping the backup media at a central site simply doesn't work, leading to creative strategies that sometimes don't succeed as well as a company might like. But, experts note, there are ways to tackle the problem.

Strike Up The Bandwidth

One major sticking point in creating a streamlined remote backup policy is bandwidth and its related costs. One option is to pay for a DS3 connection to each location, but that choice involves significant cost. Another path is using DSL, but many companies have found that it's difficult to handle a steady backup stream reliably with such a connection.

In order to lessen the headaches, Pillar Data Systems recommends that IT managers look more closely at the features in their products, rather than just how fast data can get through the pipe. What's important is that a backup system make efficient use of network bandwidth with features such as byte-level differential data transfer, bandwidth scheduling and throttling, multistreaming, and compression.

"The amount of network overhead, or information that is in addition to the data being transferred, that a product sends over the network is an important consideration," the company notes in a recent report. "Obviously, less is better than more."

Another significant consideration when creating a remote backup system is who will be handling the work. Some SMEs delegate responsibility to one person at each branch office, but experts point out that this strategy is frequently ineffective and risky.

A better tactic is to allow central IT staff to control all remote data management and backup, which might require changing the properties and characteristics of remote data, so it can be consolidated and sent to a central site for archiving.

Chuck Ladd, who handles IT at architecture and engineering firm Strahan Associates, is somewhat typical in terms of SME backup procedures, he believes. He used to store data on tape and then bring it to a safe-deposit box, but as the company grew, the procedure became a grind, and he eventually turned to Arsenal Digital Solutions (www.arse naldigital.com), which has an offsite, automated backup service. "When I did the cost benefit analysis based on how much labor I was putting into it, an automated service already paid for itself as soon as I signed up," says Ladd.

Many SMEs are going a similar route, notes Arsenal CEO Frank Brick. "Typically, smaller customers can get numerous services at an affordable rate," he says. "And, they can still have management of multiple locations."

Another option is to employ a disk-based backup product that excels at data compression. One example is ExaGrid (www.exagrid.com), a vendor that works with a company's existing applications to combine SATA drives with compression and byte-level delta data reduction.

This type of strategy could be especially compelling for data centers that like to have more control over their processes and are uncomfortable with sending data to a vendor's centers.

Whichever type of tactic is chosen, it's crucial for a company to have a growth plan in place, anticipating more branch offices in the future, notes Fred Pinkett, vice president of product management at ExaGrid.

"Data is just going to grow with the increasing sophistication of technology and more databases, leading to the need for more bandwidth efficiency and data replication," he says. "Nobody's put together one good solution for this, so IT managers will have to be creative in how they put components together, but they should definitely have a long-term plan in place when doing that." P

Auto Pilot

Unfortunately, when it comes to remote backup, there's no one-size-fits-all solution that will do the job for any company. Instead, data backup is often handled with a number of different techniques, sometimes blending tape, managed services, and appliances.

Many companies are finding that outsourcing the backup to a service has worked well, especially with the automated controls that many have.

Key Considerations

According to Pillar Data Systems, here are some of the top considerations for managing remote data:

- Central policy-based control
- WAN bandwidth utilization
- Security and data integrity
- Remote process automation and application interfacing
- Heterogeneous system support
- Point-in-time vs. continuous replication
- File ownership preservation
- Automation

Microsoft's Branch Office Bundle

Those puzzling over how to bring together disparate elements and data from branch offices may find some relief as Microsoft rolls out its branch office software bundle, announced by the company in July. The package includes Windows Server R2, Internet Security and Acceleration Server SP2, Virtual Server R2, and System Center management. The benefit in terms of remote backup is that there's no limit on the number of users who can connect to the servers, making automated storage easier. In the company's Small Business Server, by contrast, only about 75 users can connect.

The bundle does have some drawbacks, though. For one thing, customers can't use the bundle if they already have several enterprise licensing agreements in place. More notably, the package is being targeted at the midmarket and larger enterprise, leaving many smaller companies out of the loop. It remains to be seen what the bundle's reach and effectiveness might be, but some mid-sized enterprises may want to chat with their Microsoft reps to see if it's right for them.

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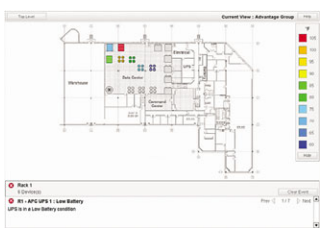

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No Backup Window Here

Continued from Page 1

are also weaved into these backup scenarios.

According to White, some companies can't achieve a local backup because the daily backup window has ballooned beyond 24 hours (even with compression). Why? White says backup data is often 10 times the size of regular data due to redundancy. "The same data is altered and then stored again. It takes up an incredible amount of disk space, which costs a lot of money. That's why many companies are turning to disk-based backup solutions that incorporate data deduplication technologies."

Often referred to as "dedupe," these technologies peruse backup data streams looking for redundancies and only store new pieces of data. White says it sounds like a simple concept, but it's difficult technology to create. She notes, "Data Domain is one company that produces high-speed data deduplication technology and packages into disk-based backup appliance solutions. These solutions have helped many companies overcome the problem of intolerable backup windows and unreliable restores."

Fixing The Broken

So how are SMEs dealing with this? They're forced to invest both strategically and reactively, White says: "Business growth, or growth of data processing needs, does not automatically translate into staff growth or increased IT budgets. IT innovation can help bridge the gap, but sometimes the success of the small to midsized enterprise environment is, sad to say, as much about how effective an IT manager is at raising funds for improvement or communicating the value of new IT investments as it is about the technical savvy of the IT staff."

White says pain points are often left to bubble up to the top where they become intolerable before an IT manager is granted funds to proactively address needs. She says as a backup solution company, Data Domain sees this all the time. "A greater percentage of large enterprises have had the luxury of adequate IT resources to date, but small to midsized companies have not, and it's tougher for them to make the transition to, for example, adequate data protection strategies—both in terms of financial investment and mind set," she says.

Lakeview Technology (www.lakeviewtech.com)—a maker of high availability, data protection, and data management software—is also helping enterprises deal with the shrinking backup window issue. Its MIMIX software includes storage management solutions providing automatic real-time replication of Linux files (Echostream FS for Linux) and a recovery point capturing component for OS/400 and i5/OS called MIMIX dr1 (able to capture multiple points to disk during a single day).

NeoPath Networks (www.neopathnetworks.com) is another company helping enterprises deal with backup problems. The company has developed the NeoPath File Director—an NFM (network file management) appliance that achieves a tiered storage strategy, minimizing the amount of data that requires frequent backup. Using the File Director, administrators can define policies that migrate data to high-performance file servers that are backed up nightly.

According to White, the term "backup" will be synonymous with "replication" in the future. She says, "They are gradually merging, and over time, backup will begin to be understood as replication. It just isn't there today because proprietary replication is very expensive, and data volume makes moving large data sets across a wire cost prohibitive." Eventually deduplication will make it possible for offsite replication to be common as a practice for backup, recovery, and disaster recovery, she says. "Many people are still struggling with their backup issues and using strategies for disaster recovery that are less than effective, practically speaking."

Dealing With Today's Biggest Backup Problems

- Pay careful attention to the trends of your backup data and how much time you are spending administrating backups.
- Take proactive (vs. reactive) action to address growth trends early on. This will allow you to more carefully evaluate the viability of new backup solutions and/or take interim steps to adapt your backup processes until funding for long-term solutions is established.
- Consider arresting backup data volume growth with deduplication technologies.
- Pilot test any new solutions to ensure they meet vendor claims and work in your environment and ask solution vendors and resellers for references.

Voice Is So Old School

Continued from Page 1

surf the Web on your phone or PDA or use the device as a notebook modem by connecting through USB or Bluetooth. Most providers also sell PCI cards that let you connect your notebook directly to their high-speed networks, without a phone.

Not Just POP

Now that you've got broadband everywhere, what can you do with it? In fact, just about anything. The days when cell phones offered nothing but POP email are over. True, Research In Motion has long offered secure email and enterprise functions through its BlackBerry Enterprise Server, but today's cell phones and voice-ready PDAs extend the same features to Palm and Windows platforms.

Take Verizon's Wireless Sync Enterprise Server, which connects a handheld to an Exchange or Notes server behind a firewall. Verizon also offers three enterprise apps for BlackBerrys, smartphones, and voice-ready PDAs: Field Force Manager, which tracks remote employees and customer service requests; Fleet Administrator, which tracks cars and trucks; and Sales Force Automation, for CRM.

T-Mobile offers Corporate My E-mail, which gives access to Exchange and Notes using Outlook Web Access or iNotes, respectively. And Cingular offers Good Mobile Messaging Solutions from Good Technologies. It gives you near-complete access to corporate email and database systems, with such IT-friendly features as global address search, over-the-air setup for new clients, remote password management with policies, and even remote data kill. And Good's Mobile Intranet lets you push data from enterprise software to a range of mobile tools on different platforms.

You can also use third-party VPNs no matter which service provider you choose. Some of the best known include Mergic's VPN for Palm, NetMotion's Wireless Mobility XE for Windows platforms, or managed solutions such as Positive Networks.

But Is It Secure?

Of course, if you're using a cell phone or PDA for more than Web surfing, you'll need to worry about data safety. And worry you will. These little tools store private data on customers, patients, inventories, or even balance sheets, all of which could be subject to HIPAA, Sarbox, and half a dozen other laws. And because they fit in your pocket, they double the potential for loss or theft.

However, there are safeguards, such as strong power-on passwords. Many networks also offer over-the-air data kills and data-transit encryption, such as AES (Advanced Encryption Standard). You can also install third-party software, such as Trust Digital's Mobile Edge, used by the IRS and the U.S. Army, or Pointsec for Mobile Platforms.

And Last . . .

With so much access to data, you'll need a good way to enter, edit, and delete it, making a cell phone's or PDA's keyboard (or lack thereof) simply crucial.

BlackBerrys are hailed for their excellent keyboards, but they're far from alone. HP's iPAQ and Palm's Treo both have on-device keyboards; models from Sprint, T-Mobile, and others even have slide-out keyboards in landscape format. And don't forget about on-screen text entry, which includes small and full-screen tap keyboards, different graffiti systems, and full-fledged handwriting recognition.

Which is right for your enterprise? In the end, it's a matter for you and your users to decide. But one thing's for sure: You have more choice—and more power—than ever.

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Made by RIM, BlackBerrys began as cell phones with advanced email; they've evolved into full-featured PDAs.

Palm
Palm was the first (and some argue the best) major platform for handhelds. Palm is also the maker of Treo, widely praised for its design.

Pocket PCs
Pocket PCs also run a mini version of Windows but, unlike smartphones, focus on data, not voice. They have a wider range of features than smartphones, but they're also larger.

Smartphones
Smartphones are cell phones that run a pared-down version of Windows. They focus on voice, not data, but offer most of the features of Pocket PCs.

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Data Dilemma

Keeping Your Archived Data Accessible

by Chris Jackson

• • •

Information life cycle management has become both a mantra for IT staffers in the SME and a millstone around their necks. The modern enterprise generates copious amounts of data that needs to be backed up and archived for both business requirements and regulatory compliance. Yet retrieving legacy data can be a challenge as backup and archive technologies become obsolete. The key? Plan for obsolescence by selecting mature, long-lived technologies and migrating your data at appropriate intervals.

The Problem

Most SMEs have a backup system in place for short-term backup and disaster recovery. Although the size of data backups has continued to grow, backup technologies have generally kept pace. Where backup systems have stumbled is in long-term archival procedures where shortsighted or under-funded methodologies have hamstrung the ability of IT departments to deliver legacy data on demand. Instead of properly archiving data for long-term retention, many SMEs have relied on inappropriate technologies that may result in less than ideal results.

Part of the impetus for this misuse of backup technology is the increase in both regulatory mandates for long-term data retention and electronic discovery requests that may arise from civil litigation. Data that was once simply discarded has been granted an almost perpetual lifespan.

However, backup systems typically suffer from both a lack of planned data archiving (as opposed to business continuity and disaster recovery backup) and hardware obsolescence. The result is usually mounds of incompatible tapes, drives, and software that are retained in the hopes that they'll function properly when you need to access backup or archival data.

A Case Study

For example, many SMEs use a backup strategy utilizing magnetic media: DAT, DLT, or LTO tapes that are stored offsite and retrieved when necessary. Magnetic tape is expected to have a life span of 50 years when stored in the appropriate environment. But expecting to be able to retrieve your data in as short as 10 years may be optimistic. The software used to create the backup may only run on Windows 2000, and the interface to the tape drive or library may be Ultra SCSI. In 2016 will your servers still support Ultra SCSI? Will the tape drive still work?

HP's StorageWorks 1100ux Jukebox (www.hp.com) uses UDO WORM disks that can record 30GB of data.

The Ulysses system from Imation (www.imation.com) uses hard drives in place of tape devices to speed up your backup process.

The Solution

The key to retaining access to your legacy data in the face of technological obsolescence lies in understanding the limits of the technologies utilized for backup and archiving and coordinating these limits with a sound strategy for information life cycle management.

According to Dore Rosenblum of NeoScale Systems (www.neoscale.com), it's unwise to expect your archival equipment to last for decades. Regardless of the specific technology you choose for backing up your company's data, you'll experience equipment that fails, software packages that have reached EOL (end of life), media that doesn't live up to its vendor's promises, and hardware interfaces that won't mesh with modern equipment.

These limitations mean that you need to be agile in terms of your backup technology. Although your company may have made a considerable investment in backup infrastructure and the corresponding staff training needed for the backup systems, these investments need to be viewed as continuing expenses, not one-time charges.

When you make purchasing decisions, find out from your vendor what its roadmap is, and how it plans for obsolescence. For example, if you're purchasing new AIT3 tape drives, be sure that they can read AIT1 and AIT2 tapes. Similar backward compatibility is also becoming the norm for both LTO and DLT manufacturers.

The Ultrium LTO tape design can store up to 400GB of uncompressed data or 800GB compressed.

Migration Options

As you begin to see your archive technology approach obsolescence, be sure to plan for an appropriate migration strategy. If you are using magnetic tape media and have a limited amount of data, you may be able to perform your own migration in-house. This would typically involve restoring each tape to a server disk and then backing up the same data to your new backup system.

If you don't have the personnel and time to face technical problems due to legacy hardware, there are numerous vendors that can assist you in migrating archival data. eMag Solutions (www.emaglink.com) specializes in data restoration migration. However, don't assume that all your data can be retrieved because backup media (especially rewriteable media) can be easily degraded.

Disks To The Rescue?

One option that many companies are investigating is the use of disk drives as a backup device. The obvious benefits are large capacity, high transfer rates, and affordability. However, using a disk drive as an offsite storage medium is fraught with peril because drives are susceptible to mishandling.

Also, disk drives are far more complex than a tape or magneto optical device. In theory, a drive that's been stored properly on a shelf should work properly when installed in a system, but for now, tape is still considered more reliable as well as cheaper on a per-byte basis.

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Bolster Your Backups

How Encryption Technologies Can Keep Your Data Secure

by Christian Perry

• • •

Any data center managers worth their salt understand that regular backups are key to business continuity. But as security assumes an increasingly vital role on the IT stage, determining how to secure those backups has grown nearly as important as actually making them.

After all, backups can easily prove counterintuitive if hackers, disgruntled employees, or even rivals can easily access the stored data. Further, backups secured with sloppy protection methods can be similarly dangerous, particularly if a company needs to access the data but can't bypass its own protection scheme.

"The good news for all SMBs is that sophisticated technologies that were only attainable by big business are now becoming affordable for small business," says Ann Westerheim, president of Ekaru, a strategic technology services company for SMEs.

Regardless of a company's budget, security products and technologies are available that can almost always conform to a specific backup infrastructure. Whether protecting tapes or disks, these technologies employ encryption to keep prying eyes from accessing the data on those mediums. Encryption works by encoding the backup data using a complex algorithm that can be decoded using only a specific data key retained by the backup creator.

Because encryption can be resource-intensive, specialized encryption appliances that sit between the data path and the backup storage device can be used to offload CPU usage and automate certain tasks. However, most smaller companies opt for the cheaper solution of backup storage software that they can install on the backup server, where it will then encrypt data between the network and the backup target.

Choose Standards Wisely

Most experts would agree that encrypting backups is a wise move, but simply encrypting with any old encryption standard—the algorithm used to encode data—doesn't necessarily mean you're protected. For example, companies using DES would likely want to think twice about their encryption strategies.

"DES is the first standard cipher the business world had. It is 20 years old and still widely used," says Gordon Bridge, president and CEO of CM IT Solutions, which provides IT professional services for SMEs. "However, it is aging and getting less secure. A knowledgeable attacker who can afford plenty of expensive computer equipment can now break DES easily. National security organizations can break this encryption with no difficulty whatsoever. DES uses a 56-bit encryption key—CM IT Solutions recommends a 128-bit key."

Practice Makes Perfect

Encrypting your backups is smart, but you won't look smart when you need to access those backups and can't figure out how to decrypt them. Experts recommend a regular schedule of testing and retrieval to ensure you can access data the moment you actually need it.

According to Ann Westerheim, president of Ekaru, companies need to thoroughly understand the restoration process, whether using simple or sophisticated checks. "Perhaps just a simple test to delete dummy files and restore from backup will be enough to boost confidence in the procedure," she says. "SMBs need to understand how file versions are handled, how long versions are kept, and how easy or difficult it is to identify the proper media location for the file."

Matt Curtin, founder of Interhack and author of "Brute Force: Cracking the Data Encryption Standard," describes an alternate option: companies that provide services for disaster recovery or business continuity drills, with both cold and warm sites available.

"Here in Ohio we've got an excellent nonprofit facility called Platform Lab where we can rent lab space and equipment on very good terms, bringing our backups to the facility, loading them up, and seeing how well we can operate in the new facility, on the new equipment," Curtin says.

Dore Rosenblum, vice president of marketing for NeoScale Systems, says that the process of backing up and restoring data should be repeated as part of any disaster recovery exercise and part of standard operational practice to ensure information can be recovered when required.

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According to Nandan Arora, CTO at Idealstor, users of a newer DES standard, known as Triple DES or TDES, will be better off than those using DES because the updated standard uses the DES algorithm three times to encrypt data. But there's a better option still. "Although [TDES] holds its own, AES [Advanced Encryption Standard] is emerging as a stronger and more efficient algorithm," he says.

A Key Point

Lost keys can spell doom to companies attempting to recover backup data, so features in backup products that allow for key management are considered particularly valuable. "The encryption engine must have access to the original encryption key for [the encryption] process to work," says Dore Rosenblum, vice president of marketing for NeoScale Systems. "Key management systems ensure the availability of encryption keys for secure recovery locally, at disaster sites, and even at third-party locations. With an effective key management system, keys are automatically made available to authorized locations."

According to Arora, companies need to remember that as technology changes they could be required to migrate their backups from older media to newer technology at some point in the future. As such, companies that encrypt their backups need to have policies in place that determine where the keys will be stored and who will be responsible for them. "It is recommended to make a few copies and also to train a few staff members on how to recover this data," he says. "If the right measures are taken, there should be no problem with recovering encrypted data."

Take It Easy

Larger companies often have the luxury of hiring security-focused personnel who can take the time to select, implement, and monitor encryption technologies. But those tasks generally get lumped in among hordes of other tasks at smaller companies, leaving the potential for backups to be exposed or unavailable when needed.

Westerheim recommends seeking products that provide automatic options for encrypting data because if the procedure is too complicated, it might not happen at all. Further, while most companies still use tape, Westerheim says that online backup could be a better option. Because data is automatically backed up on schedule, data is transmitted to a secure offsite facility, and encryption is automatically used to protect the data.

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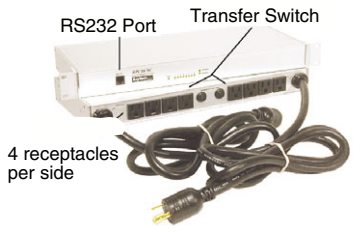

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AUGUST 25, 2006

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Product Releases

PHYSICAL

Cabling

■ **Moxa** launched two entry-level media converters, the TCC-80I and the TCF-90. The TCC-80I is a serial port-powered RS-232-to-RS-422/485 converter that offers data transmit speeds up to 115.2Kbps and can withstand 4KV rms input to output for a single minute. The TCF-90 is a serial port-powered RS-232-to-fiber media converter and is available in both single and multimode models. Both the TCC-80I and the TCF-90 have LED port power indicators. Moxa is targeting the converters at elevators, parking lots, lighting control, and other applications.

COMMUNICATIONS

Content Networking

■ The BN5000 is a new SSL load balancing appliance from **Britestream**. It also can act as an SSL offload device for companies with existing load balancers. The 1U, rack-mountable BN5000's target market is online banking, trading, and shopping applications. It comes in three models starting at $10,000.

Security

■ A new upgrade to **Applied Innovation's** AIremote device supports secure management of remote sites over CDMA (Code Division Multiple Access) and GSM/GPRS broadband cellular connections. Called AIdirector, the new remote site management console offers encryption keys and digital certificates for VPN access, pass-through console support, maintenance checks, troubleshooting, out-of-spec alerts, and router/switch/transceiver management. It can even tilt RET antennas, start or stop a generator, and handle failover in case of a problem.

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■ **Cyber-Ark Software** announced its new Enterprise Password Vault appliance, designed to let IT administrators more easily manage and secure privileged user passwords. The new offering helps prevent intentional or unintentional misuse, security breach, and data theft in a variety of ways, including through multilayered security, password policy enforcement, audit reports, access-control mechanisms, and a process for managing changes being made to access rights. The Enterprise Password Vault lets users manage generic accounts such as Administrator on Wintel platforms, Root on Unix systems, Cisco Enable, DBA passwords, and other application code and script passwords.

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■ **Lancope** unveiled its StealthWatch IDentity-1000 appliance and an updated version of its StealthWatch System network behavior analysis and response software. The offerings deliver one-click user tracking, automatic identification of users and sessions, router and switch monitoring and reporting, user identity tracking, and support for NetFlow- and sFlow-enabled network infrastructures. The StealthWatch appliance and software also comes with Lancope's intuitive Point-Of-View user interface for customizing views and reports. Currently, you can purchase StealthWatch IDentity-1000 appliance (valid with up to 200 authentication servers) for an introductory price of $19,795.

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■ **Network Box Security Response** released antispam modules for Network Boxes. The modules expand the Network Box heuristic and signature capabilities so it can better prevent MDR (multidefense resistant) image spam. According to Network Box Security Response, the modules are 98.7% effective against recent MDR image spam. This means Network Box customers won't suffer from large numbers of false positives. The module is available immediately, and Network Box Security Response has already sent the module to customers.

Serial Networking

■ **Moxa** released the NPort 6000 serial servers, which protect serial-to-Ethernet connections. Earlier NPort servers handled general-purpose applications or rugged conditions. Moxa touts the 6000 series as servers that deliver secure data transmission. The servers support DES/3DES/AES encryption, as well as SSHv2 and SSL. The series includes a 64KB port buffer that temporarily stores data during disconnections, and users can add an SD card to increase the buffer. The 4-, 8-, and 16-port models also include an LCD console that lets users directly configure the servers.

Go to Page 17

Integration For Unified Messaging

TRENDnet/Skylook Skype Hardware & Software Partnership

by Kurt Marko

• • •

While Internet telephony takes many forms, one of the most popular and least expensive is the P2P-based service Skype. Skype offers free PC-to-PC and domestic landline calls and very low-cost international rates; however, relying on a P2P architecture has meant being tethered to a computer while making calls, and most people are accustomed to placing calls using a handheld, typically cordless, device.

Manufacturers have responded with products that provide cordless phone convenience while using Skype as the calling infrastructure. TRENDnet is a recent entrant to the market with a number of Skype-compliant handheld and speakerphones.

TRENDnet's phones support many Skype features, including Contacts, Call List, SkypeOut, and Conference Call, using a menu interface with a small display. Its first product is a cordless handset using Bluetooth to wirelessly connect the base station to a PC; however, it has also announced both Bluetooth- and USB-connected handsets and speakerphones.

While TRENDnet is simplifying Skype calling via slick hardware, its alliance with Skylook provides software integrating Skype with Microsoft Outlook, supplementing Skype's native client by adding a number of powerful features. Skylook includes features such as an answering machine for Skype calls that puts recorded messages in the Outlook inbox, the ability to record any Skype call to MP3, the ability to make Skype calls to Outlook contacts, integration with Skype's voicemail with received messages placed in the Outlook inbox, and the ability to save text messages as email conversations. Combining TRENDnet's phones with the Skylook plug-in provides users a full-featured phone system: a convenient traditional phone for taking quick calls and a powerful PC application extending the tools used for managing email messages to voice conversations.

TRENDnet isn't the first to jump on the Skype phone bandwagon. Skype's shopping site offers a number of USB phones, including a dual-purpose set capable of making either Skype or landline calls. The next step in Skype hardware evolution is Wi-Fi phones—announced, but not yet available, from Belkin and Netgear—that operate independent of a PC (handy for those who don't keep their machines constantly running).

Similarly, Skylook's product faces competition from Skype's own Toolbar for Outlook (still in beta) and commercial products Look2Skype (www.look2skype.com) and Skype Contact (skypecontact.4team.biz). The adoption of Skype as a mainstream business tool is still in its infancy; however, products such as TRENDnet's Skype phones and the Skylook Outlook plug-in promise to broaden its appeal.

SnapShot

TRENDnet Skype Appliances with Outlook Integration

TRENDnet ClearSky Bluetooth VoIP Phone Kit for Skype (pictured): $110; TRENDnet ClearSky Bluetooth VoIP Conference Phone Kit for Skype: $150; Skylook Outlook plug-in: basic is free, business license is $50

Allow users to call and text message contacts from within Outlook; advanced Skylook features include recording calls to MP3 and Skype voicemail notifications in the Outlook inbox

www.Processor.com/ClearSky

Network & Systems Mgmt. **June 23, 2006**

Apposite Technologies Linktropy 4500 WAN Emulator

Device Offers Simple Way To Test & Troubleshoot Your Network & Applications

The Linktropy 4500 from Apposite Technologies is a new generation of WAN emulator, combining unsurpassed precision with unbeatable prices. The Linktropy 4500 simulates WAN bandwidth, delay, congestion, bit errors, and other important link characteristics at speeds up to 155Mbps.

The Linktropy 4500 is used to test, benchmark, and troubleshoot networks and

applications under a spectrum of real-world WAN conditions.

Uses for the Linktropy 4500 include:

- Networking app performance testing
- Application turning
- Customer and trade show demonstrations
- Network design validation
- WAN acceleration product benchmarking
- VoIP quality testing
- Satellite and wireless network development
- WAN bandwidth requirement studies
- Web site responsiveness testing
- Product QA testing

The Linktropy 4500 is designed for ease of use. The traffic monitor displays throughput graphs and statistics to help visualize performance. Integrated Ethernet bridging and IP routing functionality make the Linktropy 4500 simple to install in any network while the intuitive, Web-based, graphical interface allows the Linktropy 4500 to be set up and configured in minutes.

The Linktropy 4500 WAN Emulator simulates link conditions, including bandwidth, latency, packet loss, and bit errors and can emulate any type of WAN, including terrestrial, wireless, Internet, and satellite.

Apposite Linktropy 4500

Used to test, benchmark, and troubleshoot WANs

Price starts at $2,500

(310) 858-1492

www.Processor.com/Linktropy

APPOSITE TECHNOLOGIES

Product Releases

Continued from Page 16

Switch

■ **Moxa** launched EDS-508A/505A managed Ethernet switches. The 508A and 505A switches offer eight and five ports, respectively. Moxa offers standard temperature models that support temperatures of 0 to 60 degrees Celsius as well as –T models that support -40 to 75 C. The switches' management features include QoS, IGMP snooping/GMRP, VLAN, LACP, port mirroring, RMON, and SNMP V1/V2c/V3. The switches support IEEE 802.1x and https/SSL, as well as Moxa's ABC-01 (Automatic Backup Configuration), which lets customers back up system configurations. They also support Web-based management and offer automatic email alerts for user-configured events.

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■ **TRENDnet** announced the TEG-224WS+ gigabit Web-Smart Switch featuring a Web browser interface that can control the network on a port level. It includes 24 10/100 ports with two pairs of fixed copper gigabit ports and mini-GBIC slots. The various port options help eliminate bottlenecks back to the server and add fiber connectivity. The Web-Smart Switch can monitor the health of the network using port mirroring and trunk multiple ports back to the server. The TPE-224WS+ is capable of handling VoIP, Wireless LAN, and IP surveillance across data networks. You can view the complete lineup of TRENDnet switches on its Web site.

END NODES

Data Collection

■ **National Instruments** has announced four new data acquisition peripherals. The USB-6210, USB-6211, USB-6215, and USB-6218 are bus-powered using USB. The lineup offers up to eight digital I/O channels and two 32-bit counter/timers. The devices also come with NI-DAQmx driver, measurement, and data-logging software. Pricing starts at less than $500.

Mobile

■ **Mobility Electronics** launched its new iGo powerXtender, the first Mobility Electronics product that uses battery power to provide extra hours of runtime to mobile devices. The iGo powerXtender uses four AA batteries to power and charge nearly any mobile device when a standard power outlet is unavailable. The iGo powerXtender utilizes the same tip technology as other iGo adapters, which makes it possible for one adapter to charge multiple devices using interchangeable power tips.

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■ **Pelican** announced the new 1080 HardBack Case designed to protect 13-inch laptops while traveling. The case has a shock-absorbing, plush foam-molded liner that won't scratch a laptop's finish. In addition, this new case is crush-proof and watertight. The HardBack has a strong, easy-snap anodized aluminum latch with stainless steel pins to keep both the laptop and the case secure if dropped. The case's tongue-and-groove lid construction and polymer o-ring creates a watertight seal. A built-in, automatic Gore-TEX pressure equalization valve keeps moisture out and makes opening the case easier at various altitudes.

Printer

■ **Lanier** has released the LD215cg, a digital MFP. The unit, which is aimed at small workgroup environments, uses gel ink technology for color copying and printing. The unit also does scanning and faxing chores. The company describes the gel ink technology as using pigment-based ink that's suspended in a viscous gel, which dries immediately on contact with air, thus eliminating smudges. The unit is rated at providing 6ppm for full-color documents and 15ppm for black-and-white documents. Scanning occurs at 42ppm monochrome or 13ppm color. Specific pricing information is available from Lanier.

Server

■ **eRacks Open Source Systems** is offering ready-to-run desktop and server systems running various versions of the open-source, Linux-based Ubuntu operating system (derived from Debian Linux). The systems aim to let customers maintain control completely over their business structures via Linux's open-source characteristics, rather than being governed by licensing restrictions and being locked into third-party solutions. Ubuntu distributions that are available for installation on eRacks' systems include Ubuntu Server; Edubuntu for educational uses; Kubuntu, which is based on KDE environment; and Xubuntu for low-end systems and thin clients. eRacks will install drivers and various software on request, and the company also offers software consulting, network configuration, and open-source enterprise migration planning.

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■ **Supermicro** now offers a line of UP servers and motherboards for multicore Intel chips. Based on the Intel 3010 (Mukilteo-2P) chipset, the SuperServer 5025M+ is a 2U server, whereas the 1U SuperServer 5015M+ relies on the 3000 (Mukilteo-2) core logic. For details on the variations of these servers and the new PDSM line of motherboards, check Supermicro's site.

Storage

■ **Accusys** has released the ACS-77100 (SATA-SATA) and ACS-77101 (USB/FireWire-SATA) RAID controllers. Each controller has four bays and is available as a controller board or in a canister with a four-button LCD panel for one 5.25-inch bay. The ACS-77100 and 77101 controllers offer RAID 0, 10, 5, and 5S and support 750GB hard drives with a capacity of up to 2TB. The 77100 supports data transfer of up to 150MBps, and the 77101 supports up to 60MBps through Hi-Speed USB and up to 400/800MBps through FireWire 400/800.

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Go to Page 18

Streamline Security Processes

Skybox Automates Compliance, Change Assurance & Risk Assessment

by Joe Lazzaro

• • •

If you run a network or data center, security should be at the top of your priority list, but quantifying security gaps can be a work-intensive job. It boils down to two basic questions. How strong are your established corporate security controls, and can the threats to your time-honored business processes be readily quantified? In order to ramp up security, companies are turning to proactive security strategies rather than reactive ones, and this begins with measuring the overall robustness of your existing security policies and strategies.

Skybox View Version 3.0 suite, a product of Skybox Security, is composed of two major applications: Skybox Secure and Skybox Assure. Both applications are based on a common foundation for virtual modeling and simulation.

Skybox View enables IT staff to analyze an organization's security processes and policies, including compliance, IPS modeling, and automatic firewall auditing. The package provides IT managers with a centralized solution to automate previously dissimilar and labor-intensive processes such as risk exposure assessment, network policy compliance, firewall configuration audit, and change assurance. In a nutshell, the package enables organizations to quantify the strengths and weaknesses of each security layer and determine which security policies require firming.

The package permits managers to extract and analyze data from disparate security silos and provides a centralized platform for viewing and managing security information. Skybox View assembles metrics about organizational information technology infrastructure and security appliance configurations, correlates vulnerability scan results, maps links and dependencies among devices, and incorporates the dollar value of critical assets. The package utilizes this information to model threats, run attack simulations, and analyze the impact of successful penetrations. The result is a snapshot of an organization's overall security controls.

According to Ed Cooper, vice president of worldwide marketing at Skybox Security, "Skybox does not have direct competitors, but there are companies who provide portions of what Skybox offers. These include Secure Elements' C5 Enterprise Vulnerability Management (C5 EVM; [www.secure-elements.com]), RedSeal's Security Risk Manager (SRM; [www.redseal.net]), and Qualys' QualysGuard products [www.qualys.com]."

SNAPSHOT

Skybox View 3.0

Starts at $50,000

Creates a virtual model of network security risk profiles and runs simulated attacks, letting organizations rapidly quantify security threats to close vulnerabilities

www.Processor.com/SkyBox2

SECURITY JUNE 16, 2006

SafeWord SecureWire Identity & Access Management Appliance

Simplifies Network Access Without Compromising Security

Secure Computing's SafeWord SecureWire simplifies access to applications, data, and network resources without compromising security. The single appliance hosts and manages all external and internal access methods, including VPNs, Citrix applications, extranets, Web mail, LAN connections, wireless LANs, and mainframes. By having one comprehensive appliance to control your access methods, administrative and maintenance costs can be greatly reduced.

A key component of managing identity is authenticating users. SafeWord industry-leading strong authentication comes standard with every SecureWire appliance to deliver proof-positive identity of all users. SafeWord strengthens network connectivity with strong, one-time password user authentication included in the base product. SecureWire also provides native support for Active Directory, LDAP, and RADIUS while supporting a range of authenticators, including smart cards, biometric devices, and third-party tokens.

With tight integration to Active Directory, SecureWire is ideal for organizations that manage IT in a Microsoft environment. Companies can easily manage user identities by leveraging their existing Microsoft tools and applications.

SecureWire can simplify access, management, and compliance for any organization. If your enterprise extends its information assets to internal and external users, you can benefit from SecureWire.

- Simplifies network access and secures every access point
- Simplifies access management by consolidating policies on a single device
- Enables configuration compliance to ensure that only properly configured endpoint devices can access the network
- Reduces IT workload by providing a single point of management and reporting

Secure Computing SafeWord SecureWire

Hosts and manages all external and internal access

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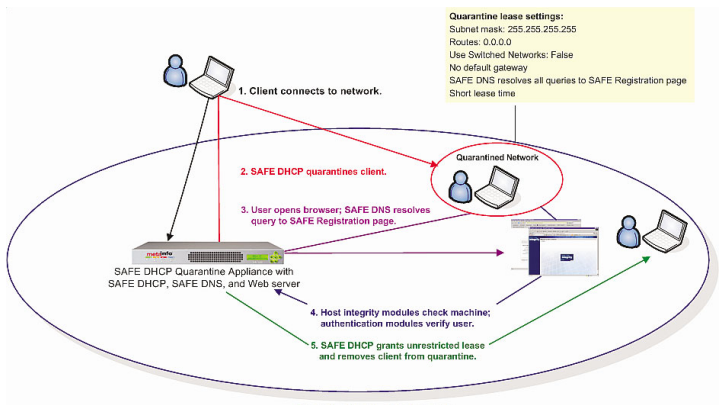
SECURE COMPUTING

SECURITY

JUNE 16, 2006

MetaInfo SAFE DHCP Quarantine Framework Is The Next Step In Network Access Control

You're In Charge Of What Users Can & Cannot Do On The Network



METAINFO'S SAFE DHCP Quarantine Appliance uses MetaInfo's SAFE DHCP Quarantine Framework, an extensible architecture for network access control.

Using the SAFE DHCP Quarantine Appliance and the MAC Address Authentication Module, network users must pass the host integrity scanning and authentication procedures your site requires. A special DNS internal root service, SAFE DNS, resolves all queries not specifically configured to the SAFE DHCP Quarantine Web page.

You control what happens after a user completes and passes the procedures, but users that fail the procedures remain in quarantine and isolated from the rest of your network.

MetaInfo SAFE DHCP

Quarantine Appliance and Address Authentication Module work together to control access

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SECURITY

JUNE 23, 2006

Fast, Invisible Intrusion Prevention Without The Expense

Arxceo Ally Appliances Provide Anomaly-Based Protection

ARXCEO'S PATENT-PENDING technologies, PnPro and Tag-UR-IT, significantly enhance network protection in today's environment. All Arxceo appliances implement these technologies to provide the most robust antireconnaissance technology in the industry—providing anomaly-based intrusion prevention while stopping attackers and worms from probing your network.

Plug and Protect (PnPro)

- No TCP/IP or MAC address; cannot be targeted or exploited
- Provides quick deployment; 15-minute installation
- No client impact; no configuration changes to any other devices
- 100% compatible with other network hardware and software

Tagged Universal Resource Information Transmission (Tag-UR-IT)

- Anomaly- and behavior-based detection; no signatures needed
- Tags, inspects, and preprocesses packets before forwarding onward; hardens network traffic before it enters your network
- Provides protocol enforcement, anti-spoofing protection, and antirecon-naissance
- Stops Denial of Service attacks (DoS, DDoS, DRDoS, etc.) along with "slow and low" network recons—even preventing bounce scans from succeeding

Ally IP-1000 (1Gbps)
Ally IP-100 (100Mbps)

Uses two patent-pending technologies to significantly enhance network protection

IP-1000: $6,495; IP-100: $895

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fax (256) 837-2888

www.Processor.com/Arxceo

Product Releases

Continued from Page 17

■ **BlueArc** says that its Titan 2000 network storage systems now come with Engenio storage arrays from LSI Logic. The 4Gbps Fibre Channel arrays are RoHS-compliant and offer faster throughput and higher density than previous offerings. BlueArc's RAID controller can handle both Fibre Channel and SATA arrays.

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■ **Exabyte** is targeting SMEs and remote office users with its Magnum 448 LTO Tape Library. It offers the tape library in three configurations. The first configuration is a half-height LTO-2 SCSI drive. Exabyte also offers full-height LTO-3 and LTO-3 FC (Fibre Channel) configurations. They also support four-cartridge magazines that can hold a total of 48 LTO tape cartridges. Customers can max out the tape library's data storage capacity at 19.2TB with LTO-2 cartridges and 38.4TB with LTO-3 cartridges. The Magnum 448 also includes a rackmount kit, a barcode scanner, and media drawers. Customers can manage the library remotely and will soon be able to download a free firmware upgrade that adds logical partitioning. Customers can attach up to four LTO-2 drives or two LTO-3 drives. The libraries include a one-year warranty with next-business-day onsite service and can upgrade to a two-year warranty for $700. A single LTO-2 drive with four magazines starts at $7,950 and an LTO-3 drive with four magazines is $9,950. The FC version of this configuration is available for $11,500. Exabyte offers 12-cartridge magazines for $350.

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■ **Imation** announced the availability of its new HD DVD discs. Imation HD DVDs can store up to 15GB of information, three times the capacity of standard DVDs. In addition to storing data, the new HD DVD discs can store high-definition television and video content with crystal-clear picture and sound quality. Like Imation Blu-ray discs, Imation HD DVD media have a protective coating to protect against scratches, dust, and smears. Imation will also manufacture double-layer HD DVDs in 2007, with 30GB of capacity on a single disc. Imation HD DVD recordable single-layer discs are $19.99.

■ **Iomega** announced the availability of two high-capacity portable hard drives with host-powered operation and Drop Shock Technology. The Iomega Portable Hard Drive 120GB Hi-Speed USB 2.0/FireWire and the Iomega Portable Hard Drive 80GB Hi-Speed USB 2.0/FireWire models weigh less than 6 ounces and measure about 0.5 inches thick. Both drives come with EMC Retrospect Express backup and disaster recovery software. In addition, both drives have USB-powered operation, which eliminates the need to carry a separate power cable.

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■ There are two new, entry-level, scalable InfiniteStorage systems from **SGI**. The InfiniteStorage 350 offers up to 24TB of 4/2/1Gbps SATA RAID capacity. Prices start at less than $30,000. Meanwhile, the InfiniteStorage 120 is a SAS JBOD unit holding up to 3.6TB in a 2U rack. Pricing starts at less than $6,000.

Workstations

■ **Advantech** introduced the TPC-1570H system, with an Intel Celeron M processor and a 15-inch touch-panel XGA TFT LCD. The system uses a low-power processor (either 600MHz or 1GHz) and has a fanless design. It also incorporates nonrotating media but has space to install a standard hard drive as well. The TPC-1570H has three serial ports, one 10/100 port, one 10/100/1000 port, dual Hi-Speed USB ports, one PS/2 port, and one parallel port. The system also has AI-Mg housing, an NEMA4/IP65-compliant front panel, support for Windows 2000/CE.NET/XP/XP Embedded, automatic data flow control RS-485, and Gigabit Ethernet support. Prices start at $1,950.

Components

■ **Acrosser** has announced the AR-B1841CM600ZC, a fanless device that features a half-sized 600MHz Celeron M embedded board. It also features four RS-232 ports and six Hi-Speed USB ports. It works as a standalone product or with a PCI backplane. Acrosser has ensured that the manufacturing process is lead-free so that the product complies with RoHS. The AR-B1841CM600ZC also comes with the programmable Watch Dog timer software.

Integrating Legacy Apps

Verastream Host Integrator 6.0 Boasts Productivity Enhancements

by Daniel P. Dern

• • •

THE MYRIAD LEGACY mainframe applications out there—for example, COBOL running on top of CICS or IMS, on IBM and Unisys mainframes, or on older AS/400, OpenVMS, or Unix platforms—have lots of data and logic that today's enterprises want to access in new CRM, ERP, and other applications.

"People are looking to reuse existing mainframe applications, so they want to build composite apps with something old and something new," says Dale Vecchio, research vice president at Gartner Group.

Rather than try to read the data natively—which means developers have to re-create business rules—or change the code, an increasingly popular solution is to use middleware that lets developers treat legacy applications as services, which their new programs can invoke.

One leading tool for doing this is Verastream Host Integrator from Attachmate, which runs on Unix/Linux/Solaris and Microsoft server platforms. Part of the Verastream suite, Host Integrator provides

SNAPSHOT

Attachmate Verastream Host Integrator 6.0

Starts at $40,000

Makes it easier to integrate Cobol/CICS and other screen-oriented legacy mainframe applications with new XML/SOA applications

www.Processor.com/Attachmate3

Product Releases

SOFTWARE

Database & Data Mining

■ **Hummingbird** introduced its Enterprise eDOCS for Microsoft SharePoint platform, which lets SharePoint Portal Server 2003 users access Hummingbird Enterprise-managed data. The new interoperability features are designed to help users share and access data between Hummingbird Enterprise and Microsoft SharePoint with minimal effort. The offering delivers a central access point to documents, folders, and workspaces; supports full-text searching; and secure metadata- and login access rights-based document and folder views. eDOCS for Microsoft SharePoint will also support SharePoint Server 2007.

Imaging & Printing

■ **Nuance Communications** announced ScanSoft PDF Converter Professional 4. PDF Converter Professional 4 gives users the ability to convert files between PDF and other formats such as Microsoft Word and Excel, Corel WordPerfect, and RTF files. This newly updated version has a new user interface, faster launch speed, and speed improvements in multipage form filling. PDF Converter Professional 4 also comes with new versions of PDF Create! Assistant and PDF Converter Assistant. The new PDF Create! Assistant utility supports batch processing of multiple files into PDF. The new PDF Converter Professional 4 also supports new standards with ISO 19005-1 PDF/A (the first formal public specification of PDF) and Microsoft Office 2007.

Mobility

■ **Mitel** has announced details for the second generation of its Mobility Solutions package, which is being geared toward making communications easier for corridor and road warriors via seamless, simple, and secure mobility solutions. The package provides fully integrated, end-to-end mobility for mobile users looking to stay in touch with co-workers, customers, and others via Mitel's Managed Applications Server, which offers embedded, VPN-independent 128-bit AES for voice and traffic data; softphones, conferencing, and collaboration tools; device agnostic mobility integration; and audio conferencing tools with recording ability. Various tools include Mitel's Teleworker Solution, Quick Conference, and Mobile Extension. Mitel's Managed Applications Server, which enables the Mobility Solutions, is designed for single-site and branch-based companies with five to 500 users.

Network & Systems Management

■ **Apparent Networks** has launched the latest version of AppCritical SME, its network-management software for SMEs. AppCritical SME handles predeployment assessments as well as the day-to-day management of IP networks. The software analyzes performance and identifies the cause of degradation on converged networks. AppCritical SME pricing starts at $40,000.

Security

■ **AdventNet** has announced ManageEngine DeviceExpert 4030, which adds support for Nortel, D-Link, ADTRAN, Enterasys, and BlueCoat devices. In all, the software supports more than 170 models from 11 vendors, including Cisco, HP, Nortel, D-Link, Juniper NetScreen, 3Com, Foundry, Fortinet, ADTRAN, Enterasys, and BlueCoat. The software also provides SSH support and a utility for tracking device discovery. A 30-day evaluation license is available. A Free Edition is available for small businesses, and pricing starts at $795 for up to 25 devices (through an annual subscription). AdventNet also offers licenses for other numbers of devices, including 50, 100, 200, and 500.

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■ **Cloudmark** released its carrier-class Cloudmark Authority, which is an end-to-end messaging security platform. Users can create policies capable of determining which messages are legitimate and separating those from the spam, phishing scams, viruses, newsletters, and other forms of junk email. Cloudmark Authority limits the

Go to Page 20

screen-based access to legacy data and logic.

By providing a middleware layer, Host Integrator lets legacy applications be accessed as services and components, such as XML, .NET, JavaBeans, or COM. Attachmate's new version 6.0 of Host Integrator adds a number of productivity enhancements and other new features, according to Ron Grevink, product marketing manager for Verastream. "Customers are starting to use Host Integrator in larger projects, so we worked on the architecture to improve performance—shorten the time projects get done and let projects scale better," he says.

The new features of version 6.0 were driven mainly by customer requirements, requests, and feedback, says Grevink. Changes include new copy objects functionality, which streamlines design creation; new debugging features; enhanced design process design features; added control of host resources for better session management, cleanup, and recovery; and simplified model deployment and testing that doesn't need a local production server.

Pricing for Verastream Host Integrator is based on factors including the number of components and functions wanted and the number of users. Purchases range from $40,000 for small technical projects up through $300,000 and up, with an average deal of around $100,000, according to Grevink.

Direct competition, according to Gartner's Vecchio, includes DataDirect IBM WebSphere Host Access Transformation Services (www.ibm.com), DataDirect Technologies' Shadow RTE (www.datadirect.com), Seagull Software's LegaSuite (www.seagullsoftware.com), and Software AG's ApplinX and crossvision Legacy Integrator (www.softwareag.com).

New features include new copy objects functionality, new debugging features, added control of host resources, and simplified model deployment and testing.

Attachmate's Grevink says, "The in-house development department is always the biggest competition, since they think they can do it without a tool to deal with their COBOL, RPG, etc."

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Product Releases

Continued from Page 19

need to create new rules for each potential threat through the use of inbound and outbound filtering, sender histories, and advanced fingerprinting technology.

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■ **CRYPTOCard** launched the latest version of its CRYPTO-Server for desktop, network, LAN, and Web server authentication. CRYPTO-Server 6.4 features a machine-to-machine architecture, a client-based authentication protocol for mobile and remote users, and new CRYPTO-Web enhancements including a Standalone Mode and a Web Farm Mode. CRYPTO-Server 6.4 also supports a software token that lets Blackberry users log in to corporate networks using the handheld to generate a VPN code. A five-user license is currently available for $499.

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■ **Trend Micro** released InterScan Gateway Security Appliance; security software designed for medium-sized organizations. InterScan protects corporate and personal data and has an antibot function to help prevent office PCs from being taken over. The software incorporates antivirus, antispyware, antispam, content filtering, and URL filtering behind a customer's existing firewall or VPN protection. The security appliance arrives with preconfigured software and hardware and is available in six models. List pricing for InterScan Gateway Security Appliance starts at $4,490.

Storage

■ **StoneFly** released StoneFusion Intelligent NSP (Network Storage Platform) 5.0, an advanced data protection and availability software that features active-active failover clustering. StoneFusion NSP is IP-based block-level provisioning software that integrates storage management, control, and monitoring of storage volumes for StoneFly iSCSI SANs. The active-active feature lets customers improve IP SAN bandwidth by balancing traffic across two Storage Concentrators in a clustered pair configuration. If a failure occurs, the remaining active system takes over as the primary handler of traffic. StoneFusion 5.0 supports Windows Server 2003 VSS and provides cell phone and text message notifications to allow tracking of system performance away from the office.

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■ **Symantec** unveiled Enterprise Vault Discovery Accelerator 6.0, an email and file archiving software to help businesses search and collect electronic records. Enterprise Vault Discovery Accelerator 6.0 is a component of the Symantec Messaging Retention and Discovery application, and version 6.0 is designed to allow corporate legal departments to search Enterprise Vault archives in response to litigation matters or investigations. The software can create a hold requirement on emails, instant messages, and files relevant to a specific issue. Discovery Accelerator 6.0 includes enhanced federated search capabilities and the ability to produce electronic messages in their native formats. The software addresses new amendments to federal rules of civil procedure.

SERVICES

Network & Systems Management

■ **Scalable Software** announced expanded compliance consulting and training services to help its customers use Command Center IT CMS (compliance management system). The consulting services include policy mapping, policy development, and compliance evidence mapping. The consulting services are designed to help customers create compliance and security controls. Training services include Command Center training and compliance training services. The training services will educate customers about the functions and features of CMS as well as legislation, regulations, and benefits of a compliance program.

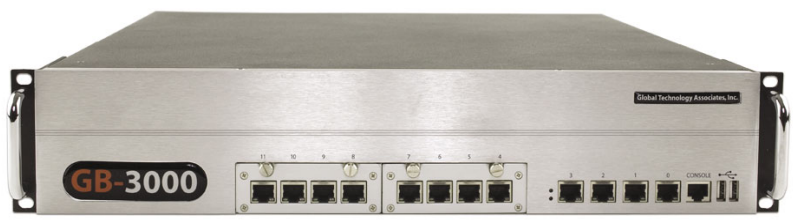
First Line Of Defense

Firewall Appliances Provide True Gigabit Performance

by Julie Sartain

• • •

IT'S CALLED A firewall because it's the first line of defense against the enemy, and that's exactly what the GB-3000 Gigabit Firewall Appliance from GTA (Global Technology Associates) is—a high-powered threat management tool that provides true gigabit performance, yet is affordable and easily managed.



"It's the first gigabit firewall offering true gigabit speeds and flexible expansion options, all designed and priced for the SME marketplace," says Nita Seng, vice president of sales and marketing at GTA. "The GB-3000 offers flexible gigabit expansion options via 4-port expansion modules, which are available with either 10/100/1000 TX or mini-GBIC interfaces."

GTA's firewall offers flexible expandability, explains Seng. Customers can select copper or mini-GBIC interfaces (allowing customers to use a multiple range of fiber connections) in the 4-port expansion modules. Flexible expansion options mean the GB-3000 can be placed into any network configuration and, because users can install these appliances themselves, the customer's firewall easily grows with his network.

Seng notes that these hardware features are amplified by GTA's GB-OS operating system, which offers maximum flexibility of implementation and fine-tuning presented in a user-friendly graphical interface. "The high level of available customization sets the GB-3000 apart from other firewalls in the SME market," says Seng. "And, using policy-based routing, GTA's dynamic gateway architecture can route data through (up to) six gateways."

SNAPSHOT

GTA GB-3000 Gigabit Firewall Appliance

$8,895 for base configuration

The first gigabit firewall offering true gigabit speeds and flexible expansion options

www.Processor.com/GB3000

The competition includes Viking InterWorks' Viking V 2-Gigabit VPN/Firewall (www.vikingcomponents.com), Secure Computing's Sidewinder G2 Security Appliance (www.securecomputing.com), and Cisco Systems' ASA 5500 Series Adaptive Security appliance family, which includes the Cisco ASA 5505 and the Cisco ASA 5550 (www.cisco.com). "The firewall space has several companies that offer gigabit firewalls," says Seng. "However, many offerings with 10/100/1000 ports aggregate the interfaces to reach gigabit speeds. The GB-3000 can process data at true gigabit speeds on all 10/100/1000 interfaces."

GTA field-tested units at a large medical facility, says Seng. The facility had considered several options for gigabit firewalls, but the majority of the products in its budget range could not meet its requirements. The GB-3000 Gigabit Firewall's offering of both copper and fiber interfaces, with true gigabit speeds, allowed the medical facility to easily integrate the firewall into its network. Threat management options including Mail Sentinel Anti-Virus and Anti-Spam fortified its perimeter defenses to stop virus and spam emails before they reached the network.

"The field test customer was very pleased with the flexible customization available in GB-OS 4.0," says Seng. "This allowed them to match the firewall to their network rather than rework their network topography to implement the firewall. They purchased the GB-3000 as soon as production units were available."

Multilanguage Patching Support

PatchQuest 4.2 Helps Your SME Keep Up-To-Date

by Cynthia Lazzaro

• • •

MANAGING THE ever-growing number of security patches and various product fixes being released for the range of OSes and apps in use today can be a time-consuming and resource-intensive task, especially for multilingual, heterogeneous environments. Software manufacturers publish their own patches, leaving it up to a network administrator to figure out how to get the right patches from the different sources and then get the right patches applied to the appropriate servers and workstations.

To make patch management easier, administrators often employ patch management software. AdventNet's SecureCentral PatchQuest 4.2 is a multilingual and multiplatform update and patch management package designed for the small to midsized enterprise environment. With the trial version of Professional Edition, admins can manage 10 systems for 30 days; with the permanent license, they can manage an unlimited number of systems. A freeware form is also available that gives users the ability to manage five systems.

SecureCentral PatchQuest 4.2 supports patching Windows, Red Hat, and Debian Linux systems and can do so in up to 26 different languages. Management is done via a Web-based client-to-server communication using HTTPS. PatchQuest automates the distribution and management of patches by scanning the network to identify needed software updates and missing patches and then distributes patches to the vulnerable systems.

The product can run in agent-based or agentless mode. With the agentless configuration, the number of services running on a system is minimized. With the agent-based configuration, more local resources are used, but it's more efficient in its use of network bandwidth utilization and aids in scaling across larger networks.

Administrators can take advantage of PatchQuest's automated patch deployment mechanism by creating a baseline set of patches and delivering patches to systems based on groups of systems and a set schedule.

SecureCentral PatchQuest 4.2 supports patching Windows, Red Hat, and Debian Linux systems.

SNAPSHOT

AdventNet SecureCentral PatchQuest 4.2

Starts at $695 for 100 systems, which includes an annual subscription fee of $300 and a one-time server fee of $395

Web-based, automated software scans the network and distributes necessary patches and software updates

www.Processor.com/Adventnet4

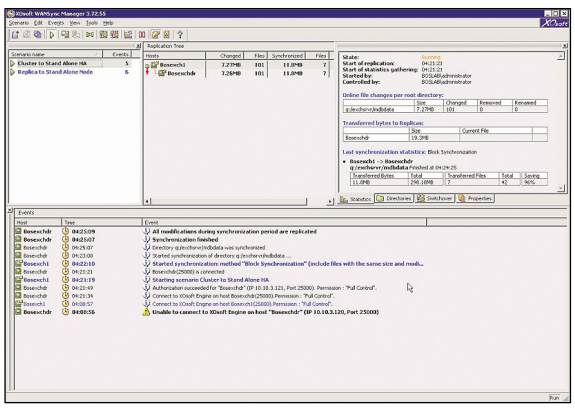
Many of the competitors for patch management apps have overlapping features. One competitor is GFI's LANguard Network Security Scanner, which will scan for vulnerabilities across multiple platforms but doesn't have the same multilingual capabilities as SecureCentral PatchQuest (www.gfi.com). Still another competitor is UpdateEXPERT Premium from St. Bernard Software, which supports multiple languages but is limited to the Windows platform (www.stbernard.com).

SECURITY

AUGUST 11, 2006

Versatile Network Platform: WIN Enterprises PL-01027

Desktop VIA Eden/C7 Network Appliance With Four 10/100 LAN



THE PL-01027 is a scalable network appliance that provides a flexible platform to support network security and other network-based applications. A compact, 1U desktop appliance, the PL-01027 is appropriate for many network roles, including: policy gateway, wireless security gateway, content filtering, NAS (network attached storage) device, or firewall. It provides a flexible application platform for OEMs, system integrators, software vendors, and IT to deploy a variety of their solutions. It is architected using the VIA C7/Eden processor with VIA CN700 and VIA VT8237R chipsets. A variety of processor speeds are available to meet a range of application requirements, including 400MHz, 1GHz, and 1.5GHz.

Features:

- Compact dimensions: 9.1 (W) x 6 (D) x 1.7 (H) inches
- RoHS compatible
- Scalable performance network appliance for SMB/SOHO segment
- VIA C7/Eden processor with 400MHz FSB
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TELEPHONY

JULY 14, 2006

ZyXEL's New VoIP Solutions Bridge The Move To VoIP For The SME

Products Enable Multiline VoIP Service

COST SAVINGS AND improved productivity through digital convergence are some of the key elements driving businesses to change from a traditional phone network to a VoIP network. There's no denying it; the advantages are clear, and the demand for VoIP networking solutions is on the rise.

ZyXEL's new SMB VoIP Integrated Access Device (P-2608HWL) and SMB VoIP router (P-2304R) can bridge the move to VoIP for growing businesses. Both products enable multiline VoIP service through one of two options:

- Hosted VoIP services
- Integrating with an existing analog PBX system

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P-2304R VoIP Router:

- Four FXS phone port connections
- One 10/100M auto MDI/MDIX Ethernet port
- Multimedia Bandwidth Management guaranteeing QoS
- Built-in ICSA-certified firewall/VPN

ZyXEL P-2608HWL All-In-One VoIP IAD & ZyXEL P-2304R VoIP Router

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JUNE 23, 2006

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Security

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MAY 19, 2006

Britestream and OSST have partnered to deliver a highly scalable security appliance built on Microsoft Internet Security & Acceleration Server. The New OSST SecureGuard combines the strengths of Microsoft's ISA Server 2004 and Britestream's SSL Security NIC to deliver perimeter security, branch-office connectivity, Web caching, and maximum SSL performance in one solution.

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PRINTER — MAY 19, 2006

TallyGenicom's High-Speed Serial Matrix Printers Have Multiple Connectivity Solutions

Ideal For Time-Sensitive, Business-Critical Applications

TALLYGENICOM'S 2265+ and 2280+ models of the 650 and 900 cps serial matrix printer family are designed for time sensitive and critical business printing applications in industries such as warehousing, manufacturing, transportation, retail, and others that require multipart forms printing.

The 2265+ printer is available in a variety of configurations, making it the ideal choice for multiple connectivity environments. The configurations include parallel only, parallel with serial, internal Ethernet, PCL, and LAN IPDS for IBM AS400/iseries users. List prices range from $1,845 to $2,227.

The 2280+ is also available in a variety of configurations, including serial, parallel, PCL, internal Ethernet, and LAN IPDS. List prices range from $2,543 to $3,709. The 2280-2T+ is designed for users that require the ability to print up to nine-part forms for use in industries such as transportation, customs brokerage firms, and the healthcare field.

"By adding this robust and comprehensive product line to our offering, TallyGenicom is continuing our commitment to our customers by being the solution provider for their changing serial matrix printer requirements" says Chuck Ward, serial matrix product marketing manager at TallyGenicom.

TallyGenicom continues to support Digital /Compaq serial matrix printer users. The LA650 + and LA800+ are designed for these legacy applications. These new printers replace prior models 2265, 2280, 7265, LA650, and LA800.

TallyGenicom 2265+ & 2280+

Available in a variety of configurations for multipart forms printing

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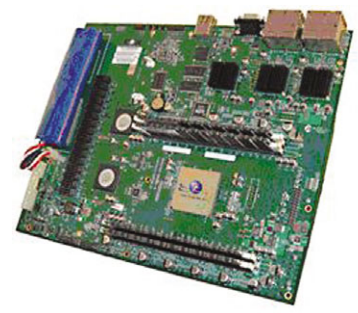
STORAGE — JUNE 23, 2006

iStor GigaStorATX

Allows For Competitively Priced, Performance-Oriented Storage

GIGASTORATX IS the newest generation iSCSI RAID Controller, providing the best price/performance ratio and most feature-rich integrated iSCSI storage controller available in the marketplace. iStor Networks offers the GigaStorATX in a multiple port 1GbE and a single port 10GbE version. Both products are designed to conform to industry-standard ATX form factor specifications, allowing use of off-the-shelf PC server and storage chasses. The GigaStorATX allows OEMs, VARs, and systems integrators to offer competitively priced, performance orientated storage subsystems with an integrated storage firmware stack, lowering the cost of overall maintenance, providing greater ROI and increased customer satisfaction.



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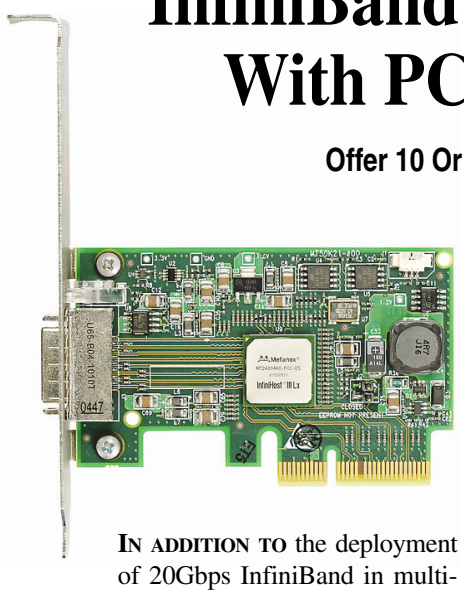

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APRIL 28, 2006

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OPINIONS
DATA • DEVELOPMENTS

Vista & SQL Server 2000: Will They Work Together?

I've been heads down the past two weeks grinding out the final edits for my new book "Hitchhiker's Guide to Visual Studio and SQL Server (7th Edition)." As I've said before, trying to document and explain Microsoft developer products is like trying to paint a portrait of a moving train. By the time I'm ready to finalize a chapter, Microsoft introduces another product, re-re-releases a new database engine, or pumps out a service pack that moves the train farther down the track and I have to start over.

I've just completed the process of folding in the new SKU Microsoft calls "SQL Server Everywhere." I'm going to write an ebook on this as well. Too bad it's not SQL Server. While this new release of SQL Mobile is cool and can play an important role in application design, it's not SQL Server. It does not run as a service; it does not support T-SQL; it's not exposed with the SqlClient .NET Data Provider—it's not "SQL Server." I guess in its excitement, Microsoft tried to leverage the popularity of SQL Server Express *et al*.

Microsoft To Stop Support For SQL Server 2000?

In that same vein, the insiders heard that SQL Server 2000 won't be "supported" on Vista. However, Ed Lehman at Microsoft also says that mainstream support for SQL Server 2000, which includes MSDE (Microsoft SQL Server Desktop Engine), will end in 2008, and extended support ends in 2013. At first, this can seem like a mistake in communication; surely Microsoft isn't going to prevent SQL Server 2000 from running on its new OS platform and disenfranchise most of the IT shops in the world.

Having discussed this with those at Microsoft who should know, apparently "not supported" means (in this case) Vista won't install SQL Server 2000. I didn't believe it until I tried it myself. I installed the latest (5472) CTP build of Vista, and no, it won't even run the setup batch on the MSDN setup DVD for SQL Server 2000. Frankly, I see this as a landmine in Vista's path. It's sure to knock the treads off its adoption plans. Microsoft, please say it isn't so.

Frankly, I'm not sure Microsoft understands IT businesses as well as it might. The IT managers I interview tell me that they have not had SQL Server 2000 installed all that long, or it just doesn't seem that long. Most have spent countless developer-years and IT dollars bringing their teams up to speed, converting to SQL Server 2000 (including MSDE) and getting their systems working to the point where everything that's going on is by design and there are very few midnight calls to fix unforeseen problems.

Anyone who understands the complexity of a serious IT shop and the dozens to thousands of interdependencies it faces knows design, development, testing, deployment, training, and documenting take time and careful budgeting of resources. Once these systems are installed and understood, IT managers and their teams are not particularly interested in "improving" them unless there is a pressing need that can bring a return on the (considerable) investment required to change them. Being told to "just" convert to SQL Server 2005 is . . . well, unrealistic and frankly smacks of "Let them eat cake."

Complexity Hobbles Release Schedules

Of all the companies I know, Microsoft should understand complexity and its impact on schedules better than anyone. Because Microsoft originally tried to make Vista encompass so much functionality, it took years to discover that it simply could not get it all to work. It was about this time it hacked off WinFS and (I expect) several other features in an attempt to get a product simplified to a point where it could ship it before the developers retired or moved on to jobs where the stock was still gaining ground.

In my humble opinion, one of Microsoft's greatest challenges is managing the interdependencies of its systems. It has to coordinate with Office, which gets its way more often than not, and with the dozen server systems (including SQL Server, ISA, IIS, SSIS, and LSMFT—OK, the last is leveraged from P. Lorillard, but you get the idea), as well as with the .NET Framework team and the ever-expanding Visual Studio teams. Of course, this does not include a dozen seemingly less important groups like product support and (of course) documentation which, according to my sources, is being cut back to save money. How well is Microsoft managing this behemoth? I'll let you be the judge.

In the coming months you're going to see more Vista and Visual Studio CTPs extrude from the buildings on the hill overlooking Redmond. The question I have (and perhaps you should ask as well) is "Will my existing applications, systems, training, and experience port seamlessly to the new platforms?"

Send your comments to bill@processor.com

WILLIAM (BILL) VAUGHN

AUTHOR *William (Bill) Vaughn is an industry-recognized author, mentor, and subject-matter expert with more than 30 years in the computing industry as a developer, manager, trainer, marketer, and writer. After 14 years at Microsoft, Vaughn stepped away to work on his new books, in addition to mentoring and leading training seminars. He's written six editions of the "Hitchhiker's Guide to Visual Basic and SQL Server" and two editions of "ADO.NET and ADO Examples and Best Practices for Visual Basic Programmers." He and Peter Blackburn just finished "Hitchhiker's Guide to SQL Server 2000 Reporting Services."*

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OPINIONS
INFRASTRUCTURE

Holy "MAC"-kerel!

I've seen some strange things in my lifetime. I've seen a man escape from a straight jacket atop a 6-foot unicycle while regaling the audience with the merits of public-key cryptosystems. I've seen my brother-in-law don tights and dance to the tune of "Kung Fu Fighting" in front of a full auditorium. I've even seen the son of an Oklahoma Sooners football coach start at quarterback for the Nebraska Cornhuskers. But I never . . . I mean never . . . thought I would see an Apple laptop at Sandhills Publishing. And what's more? The darn thing is growing on me. I can't help but stop and wonder if Apple's marriage with Intel is finally the combination that will buy it a larger piece of corporate America.

Feel The Heat

Actually, I don't want to feel the heat. Heat is the bane of all mobile devices. Not only is it a constant reminder of how fast your batteries are being consumed, but who wants to put a 120-degree computer on his lap? Admittedly, I have not put a thermometer to the MacBook Pro, as a sample size of only one is hardly scientific, but it feels decidedly warmer than the IBM, Lenovo, Dell, and HP laptops we have around here. Not necessarily hotter overall, but certainly hotter through the wrist rest where the user is most inclined to notice. When the front page of my local newspaper even shows the competition's laptops spontaneously combusting, heat dissipation is a paramount concern for many IT buyers. The temperature is a strike against Apple that it will need to overcome.

The Price Is [Almost] Right

The MacBook Pro we purchased was very comparable to our standard-issue Lenovo T60. The MacBook has a little bit faster processor, and a little slower hard disk, but otherwise we are comparing apples to apples. (No pun intended.) Yet the MacBook was a full $500 more. Certainly, I always try to look at total cost of ownership, but I still have an accounting department I have to answer to.

MICHAEL DEMPSEY

AUTHOR *Michael Dempsey is the information technology manager of Sandhills Publishing and technical editor of* Processor *magazine. He has more than a decade of experience in voice and data communications and holds current CCNP and CCDP certifications. Dempsey is an expert in network security, virtual private networks, and IT infrastructure.*

Right now my Lenovo laptops are costing me a small fortune in man-hours fixing problems with hard drives, screens, and docking stations—enough so that I am actually considering Macintosh. Only time will tell if it's really a better machine and worth a couple hundred extra dollars per unit up front or not, but Apple's reputation for quality is impeccable, and this laptop appears to be very well built. In the meantime, I think Apple needs to find a way to lower the initial purchase price, or do some serious marketing on its total value play, before the corporate bean counters will be onboard.

Say What?

Now not only is there a Macintosh on my desk, but it's natively running Windows XP. It's like a Yankees fan wearing a Red Sox cap; it just doesn't seem natural. But by golly it seems to work pretty darn well considering it's made possible by Apple's beta version of a program called Boot Camp. Apple is claiming it will incorporate Boot Camp fully into its next major OS release, but keep in mind, it is still only a beta and a promise at this point.

More than just Apple, running Windows on a Mac will need to be fully supported by Microsoft as well before it really captures mainstream attention as an alternative. That's neither a knock against Apple nor an endorsement of Microsoft; it's simply an observation of fact. There are many companies out there just like ours that have decades of end-user software developed for a Windows/PC platform. Whether that software is the best is irrelevant. It's the incumbent, and Apple will have to adapt to that in order to break into that market space.

Window Dressing

Lastly, Apple could stand to put a little more work into the process of installing Windows. Items such as having no eject button on the CD drive, no right mouse button, and no DELETE key on the built-in keyboard managed to trip me up for almost a full week. Obviously, if I did it again, I would be a little quicker about it, but it's another case of where Apple's past gets the best of it. Apple may sincerely believe it has some better ways of doing things, but you can't convert me cold turkey. I have too many years of Windows habits built in. You have to cater to my neurosis and then slowly win me over.

Apple, of all companies, should realize by now that it's not always about making the best products; it's about timing, packing, pricing, and even convenience. Then if you can accommodate the masses and do it at a higher quality than the competition, you really have something. I believe Apple has this potential. I realize hell might actually freeze over if there was an Apple model sold with a preinstalled Microsoft operating system, but I bet it would get some serious consideration from IT buyers. Look what's happening with HP; its laptop sales continue to climb because of people like me who are not yet willing to accept the Dell and Lenovo mantra that laptops are purely a commodity. With a little more work on the heat dissipation, the initial price point, and full support for Windows, Apple is a viable contender for the corporate workstation. P

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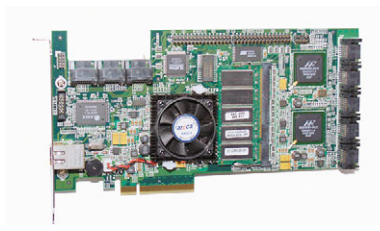

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BOOK REVIEW

Resolve Conflicts Within Your Company

Book Shares Strategies For Mediation & Negotiation

by Elizabeth Millard

• • •

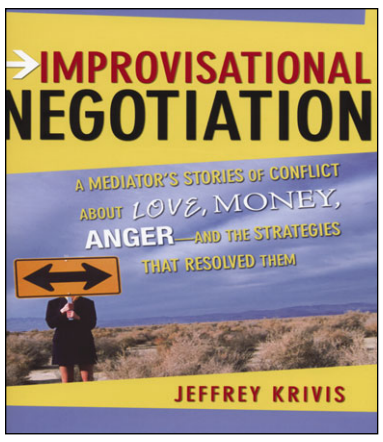
Running an effective IT shop takes more than project savvy, technology expertise, and goal-setting. Occasionally, it also involves soothing hurt feelings, dealing with user anxiety, and mediating conflict among employees, contractors, and even executives.

In his exploration of such tricky situations, Jeffrey Krivis, author of "Improvisational Negotiation: A Mediator's Stories of Conflict About Love, Money, Anger—and the Strategies That Resolved Them," details a number of real-life scenarios that required time and effort to smooth over difficulties.

The Complexities Of Mediation

By presenting the situations in detail and giving both sides of each story, Krivis creates a compelling look at what causes conflict and a realistic view of what it takes to solve disputes. He expends hours getting the perspective of each side, showing that mediation is a complex process that requires just as much creativity as conversation.

One tale involves Dan, who'd just been fired from a high-tech firm despite having a stellar performance record. The overwhelming anger Dan feels surprises his supervisor and threatens to lead to a high-profile lawsuit until Krivis discovers that Dan has a personal investment in the company, seeing his colleagues as family rather than just co-workers. Eventually, an agreement is hammered out that lets the ex-employee do consulting for the company, but more importantly, it demonstrates to his supervisor that some people might feel more attachment to the company than he realizes.



Improvisational Negotiation: A Mediator's Stories of Conflict About Love, Money, Anger—and the Strategies That Resolved Them

Author: Jeffrey Krivis

Publisher: Jossey-Bass/Wiley

Price: $35

Format: Hardcover, 323 pages

At the end of each story, Krivis gives advice about what the reader should learn from the scenario. In the case of Dan, he notes that the company should have looked for clues to deeper psychological issues and created an atmosphere where both sides felt free to have compassion for each other.

Resolution Application

Although some of the tales aren't relevant to business, the lessons can apply within a professional atmosphere. For instance, a conflict involving teenage boys who fired a paintball at a little girl illustrates the importance of empathy when emotions are running high and of validation for other points of view.

Other stories involving employment discrimination and disgruntled workers are especially instructive, and Krivis is adept at giving advice that's easy to implement. In many cases, simply giving both sides the opportunity to state their gripes goes a long way toward creating an open negotiating environment. Other strategies include limiting the number of participants in a discussion, taking time to negotiate rather than rushing toward a "quick fix" solution, clarifying each point as it's made, and reviewing a mediation's progress by writing down key points that each involved party share.

Krivis emphasizes the value of listening to multiple perspectives and weaving them together to reduce conflict. As IT managers know, companies are made up of people, and emotions do play a part in how people react to different situations. For instance, new security policies, downsizing, or management changes can cause deep undercurrents of anxiety and frustration that can affect even the most carefully planned projects.

"When it comes to negotiation, we all have to use our improvisational skills to make deals happen," writes Krivis. Recognizing conflict, understanding emotions, and bringing people to an understanding are key.

Key Concepts

- Brainstorm to increase the list of settlement options
- Encourage trust by building rapport early, chatting about topics unrelated to the dispute
- Take a verbal inventory of progress, concentrating on the opportunities that have been created and the decisions that have been made
- Role-play so each side can see the other's point of view
- Physically move to a different location if negotiation seems stuck
- Identify goals and encourage parties to meet them
- Show a willingness to listen and be open to ideas

STORAGE

July 21, 2006

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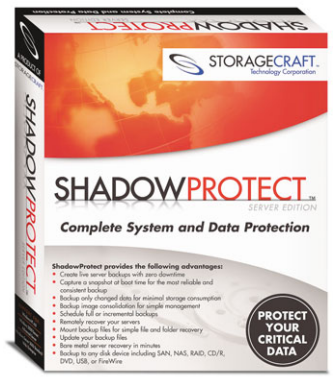

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SECURITY

July 21, 2006

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The CyberAngel manages technical support, password recovery, and other elements. It is compatible with all current Windows operating systems.

Key Features

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- User authentication (one- or two-factor)
- Asset/hardware tracking and recovery (LAN, WAN, Wi-Fi, DSL, modem, cable, etc.)
- Restriction of unauthorized remote access

Industry Statistics

- More than 57% of all network breaches are made from laptops. (FBI)
- 97% of stolen computers are never recovered. (FBI)
- 1 out of 10 laptops will be stolen or lost each year. (Gartner Group)
- 32 States have passed the Security Breach Notification Law, which only applies to unencrypted information.
- More than 32 million Americans have had sensitive personal data exposed during the past seven months and nearly 90 million since the ChoicePoint incident last year.
- 20% of customers who received a breach notification terminated the relationship due to lack of trust. (Ponemon Study)
- $14 million——average cost per company with a data breach. (Ponemon)

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The Sticky Side Of Tape Disposal

Which Option Is Right For Your SME?

by Douglas Schweitzer, Sc.D.

• • •

With the number of regulations now surrounding the use, security, and storage of data, companies are to be extremely careful, and highly proactive, in how they dispose of data and data storage media.

Not all data eradication, data destruction, and tape disposal services are forthright about the procedures they use in data destruction. Some companies offer data destruction by destroying the tape media, which seems straightforward; however, destroying the media alone does not erase the data on tapes. Some services claim to overwrite the data so it is unreadable but then only rewrite part of the tape. Again, this is somewhat duplicitous, as a portion of your "overwritten" data remains readable. Still others use degaussing equipment that is not strong enough to adequately erase all data on today's high-density media. Data center managers should exercise caution and remain vigilant when they evaluate prospective data eradication services.

Out With The Old, In With The New

As businesses adapt to different technologies, they will need to dispose of their old tapes and backups. According to Trey Wilkins, director of marketing at eMag Solutions, "This is especially true with the dynamic changes as users migrate to newer technologies more frequently than ever before." In today's business atmosphere, more people are becoming environmentally conscious, urging companies to embrace recycling. And, adds Wilkins, older media disposal has become more costly.

Whether they're being recycled or destroyed, tapes must be properly handled. Not only do organizations have to protect client privacy concerns, they also have to meet compliance regulations, which often cannot be disputed. "This is specifically why we developed an erasure process (wiping or eradication) to totally remove old data while preserving continued usefulness of high-density tapes with servo tracks," says Wilkins. "We call this process our Tier 3, Data Eradication." Companies can oversee the work of the firms they hire to erase their tapes and actually verify each tape while it is being serviced onsite. In fact, eMag Solutions boasts that it's the first company to offer a full data track with servo preservation, which Wilkins says is "a unique option for corporations to ensure the data is removed while still maintaining the ability to reuse or sell the tapes."

Another dilemma arises when an organization wants to eliminate its old media in favor of higher capacity or faster media. After your company decides that tapes will no longer be used, you must be sure they are properly eradicated or "wiped" before they leave your premises. But what is the best option for your small to midsized enterprise?

Alternatives Abound

The options for tapes whose usefulness has been exhausted include data destruction, degaussing, overwriting the data, and data eradication while preserving the servo tracks. "In each of these cases the tape can be recycled as long as you don't degauss a tape with servo tracks and destroy the servo tracks," says Wilkins. "The other option is tape destruction, and the tape is incinerated. In either case the company should get a certificate of destruction."

Savvy companies don't just have their media destroyed; they can often turn a profit on old tapes. In some cases it doesn't pay

Go to Page 30

Tape Disposal Services

Company	Services Offered	Web Site
Garner Products	Tape degaussing (erasing)	www.garner-products.com
Media Recovery	Data eradication and tape disposal	www.mediarecovery.com
StorageMedia.com	Secure data eradication	www.storagemedia.com

Batten Down The IT Hatches

Accelerating Patch Deployment In The Face Of Expedited Exploits

by Tony Bradley

• • •

It wasn't long ago that many companies considered OS and application patching to be a back-burner task. It might be nice to do if time and business requirements permitted, but it was not an urgent matter. Patching has grown to become a focal point of the overall security and integrity of the network, and many companies have dedicated employees, or even teams, assigned to evaluating and deploying patches as quickly as possible.

Susan Bradley, a Microsoft MVP for Small Business Server and an expert on Microsoft patching, says companies need to be concerned about how quickly patches are implemented "because the window of time between proof of concept [code] to exploit code to worm to attack is shrinking. In some cases, like most of the Internet Explorer patches, the exploit code is already out and already in use. This shrinking window means that we no longer have the 'year' window we had back in the SQL Slammer era where there was [almost] a year between when patches came out and an exploit tore through the Web. Three years ago Blaster gave us about a month, [but in August] MS06-040 gave us about five or six days before we started seeing stuff."

Time Is Money

Not only does getting the patch implemented faster mean your systems are protected quicker; it also saves money. Patching starts at knowing the patch exists. Without a patch management application, such as UpdateExpert from St. Bernard Software (www.stbernard.com) or the PatchPoint proxy appliance from Blue Lane Technologies (www.bluelane.com), that means having a technician or administrator monitor vulnerability and vendor Web sites for any newly available patches.

Once the patch is released, it must be reviewed and assessed to see whether it applies to your particular systems, and then it must be tested to make sure it won't break or impair your mission-critical applications. After that, the patch must be packaged in some way for whatever deployment method will be used, and then it must be distributed to and installed on each of the applicable systems. All of this takes man-hour and hardware resources that cost money.

Getting the patch out quicker by reducing the amount of testing done, adding more personnel to expedite the process, having the patch deployment team put in extra hours, or using an automated patch management tool can all help cut the cost of patch deployment. However, if the patch is rushed out and ends up crashing critical business systems, it may cost more and result in lost revenue or a damaged business reputation.

Get It Right

Chris Andrew, vice president of security technologies for PatchLink, says, "Deploying without

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Patching By Proxy

Amid all of the urgency of patching and what the best approach is for evaluating and deploying patches as quickly as possible, a new strategy has emerged as well: Don't patch at all.

Blue Lane Technologies has introduced the PatchPoint appliance, which acts as a proxy for the patches. Sitting between the network and the vulnerable servers, the PatchPoint appliance intercepts traffic and alters it in the same way that the patch would have affected the data, then forwards it to the original destination.

The end result is that the servers, while still technically vulnerable, are not affected by vulnerability exploits. There is no need to test patches or time wasted waiting for them to be deployed. The "patch" can take effect immediately. The patch proxy can also protect operating system platforms that are no longer supported by the vendor. For more details, see www.Processor.com/UnpatchedServers.

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Dark Data Center Design

The Setup & Not-So-Dim Reality For SMEs

by Robyn Weisman

• • •

THE LIKELIHOOD OF REMOVING the so-called "human element" entirely from data centers may still be the stuff of science fiction—and may not be altogether desirable. Nevertheless, limiting the number of people who access your data center is desirable and often essential to maintaining a network.

"IT failures and data center errors are caused [in large part] by human-related failures," says Peter Sacco, president of PTS Data Center Solutions. The variables human involvement introduce into a data center can lead to more clutter, more risk, and ultimately technical complications, he says.

Because of these issues, the concept of the "dark data center" is gaining traction among IT professionals. In its idealized form, a dark data center is a network environment and infrastructure that can be managed remotely and that is compartmentalized, where functions are broken up in multiple rooms and even separate floors for massive large-enterprise setups.

Reducing Risk

Human error gets ushered into the data center through several channels. In-house IT staff, facility staff, other company employees, and outside consultants may wander into the bowels of the network, ignorant of procedures. An electrician, for example, might enter the data center to fix the connectors of a florescent tube and accidentally cut off the circuit breakers for the Exchange server.

In designing dark data centers for his company's clients, Sacco stresses the importance of separating functions into separate rooms as much as possible. "We would never put the UPS or the air-conditioning in the computer room so that a mechanic doesn't need to go into that room to fix a cooling problem," he says.

Forrester Research analyst Richard Fichera recently authored a report that echoes this line of thought for data center cooling systems. "The cooling systems are second only to the systems themselves in their contribution to a data center's electrical load and cost . . . intelligent layout and attention to simple high-level design issues can pay big dividends," Fichera writes.

Securing the data center is critical as well, regardless of its size, says Yankee Group senior analyst Laura DiDio. "You need to be able to monitor and regulate access to servers through carded access [and] keeping lists of who has access to this area," DiDio says. "Also, if there is an expensive piece of equipment or a specific server carrying critical information, try to put it in a little room someplace, if possible."

Feasibility For SMEs

A true dark data center is out of reach for all but the largest enterprises. "Cost and complexity are the primary disadvantages for realizing this goal," Sacco says. DiDio notes, "[SMEs] literally don't have that much space or that many people, applications, or physical servers to do this, and for the most part [it] is not practical or necessary."

Moreover, says Sacco, the proper deployment of a dark data center is being overshadowed by power distribution and cooling strategies. The best practices of leading UPS companies such as APC presently place its power distribution setups in the main computer room.

Sacco says APC is the only UPS manufacturer whose best practices specifically put its units in the data center. However, there are several companies in the high-density cooling industry such as Rittal and Liebert whose best practices interfere with the setup of a dark data center because their structures and enclosures are supposed to be set up in the main data center and require someone besides the IT admin to enter the data center to set them up or repair them.

The "Dim" Alternatives For SMEs

But SMEs do not have to give up the dark data center dream entirely, says Sacco. A "dim data center" resembles the dark data center in its understanding of the primary concepts. "There's at least that consciousness of processes of how work is accomplished and then restricting, tracking, and accepting accountability of human access the best you can," Sacco explains.

Achieving this dim data center ideal translates into IT administrators maintaining flexibility in their server and network setups, seeking out software-based solutions for remote access, and keeping abreast of trends in related technologies, such as KVM and IP-remote standards, that suggest compartmentalizing certain processes akin to those advocated by dark data center devotees.

DiDio says up-to-date equipment and related wiring is important to prevent electrical fires and power outages. Also, she says lots of remote monitoring applications are available, many of which are cheap or free.

For example, Nagios, an open protocol SMTP trap manager, is a good choice for tinkerers (nagios.org). For less than $1,000, there is Ipswitch's WhatsUp Professional 2006 Premium Edition (www.ipswitch.com). For midsized companies, there are managed IT solutions service providers. Sacco says IPsoft (www.ip-soft.net) is a solid option. It's not cheap, but it's less expensive than offerings for large enterprises.

Another Reason To Use Virtualization Technologies

Virtualization, a hot topic of late, is a useful technology for helping IT administrators realize some of the benefits that come with having a dark or dim data center—and make dim data centers more of a reality for small to midsized enterprises. Server room temperature and humidity control, for example, can be optimized with virtualization technology.

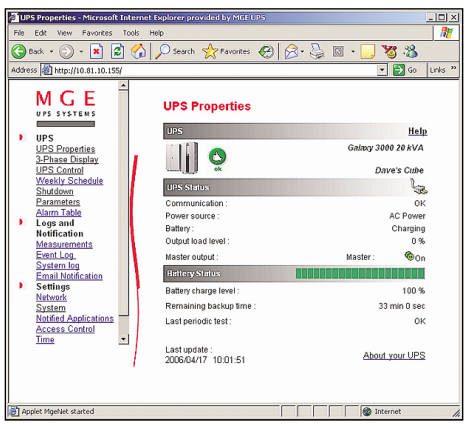
When you deploy virtualization in the data center, getting a four- or five-to-one server consolidation, you are able to consolidate the amount of space you are employing and power convection, so you're improving on conservation as well as with security, Yankee Group's Laura DiDio says. With virtualization you have the potential to save on power and utilities costs.

Peter Sacco, president of PTS Data Center Solutions, says that virtualization can aid against data center sprawl, which is particularly helpful to SMEs with small data centers that may only feasibly design a dim data center.

PHYSICAL INFRASTRUCTURE — JUNE 9, 2006

Simplified Asset Management & Supervision Of UPS Systems

MGE Enterprise Power Manager Includes Real-Time Logging Of Events



MGE's Enterprise Power Manager v2 can substantially lower costs for supervising single- and three-phase networked UPS systems compared to using major network management system platforms. Enterprise Power Manager can carry out a scan for all the UPS systems from MGE, using both XML and SNMP protocols. The open architecture of EPM enables the discovery of UPSes from any other vendor supporting the standard UPS management information base (MIB). It also discovers and manages other critical power components, such as Power over Ethernet (PoE) midspans, Intelligent Power Distribution Units (PDUs), Source Transfer Switches (STS), and rack monitoring systems to give administrators comprehensive control of their protected infrastructure.

This new release of Enterprise Power Manager addresses the special needs of complex three-phase power systems, with the ability to draw any type of power architecture, with multiple levels of redundancy, and view the actual power flows on the GUI.

Accessible from the Internet and any workstation using a standard Web browser, users can click a UPS in the presented diagram to obtain detailed information about the operating and configuration parameters in a dedicated window. Enterprise Power Manager uses Secure Sockets Layer (SSL) encryption along with several levels of passwords for complete security. In the event of a power emergency, alarms are centralized and transmitted by email or through Short Message Service (SMS). The systems' real-time logging of events and operations helps users to conduct preventive maintenance of their various UPSes.

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NETWORK & SYSTEMS MGMT. — AUGUST 11, 2006

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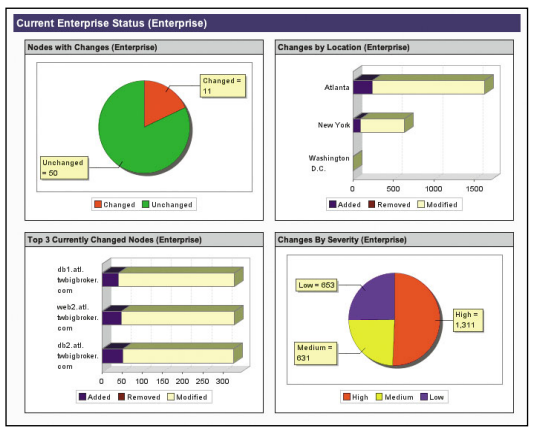

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Change is the most significant threat to an enterprise's compliance status, security posture, and ability to deliver high-quality IT services. Just as a chain is only as strong as its weakest link, an IT service stack is only as controlled as its least controlled component. Tripwire Enterprise independently audits changes across the entire IT service stack—servers, desktops, middleware, directory services, network devices, and now, databases.

The various components work together, ensuring all changes are auditable by providing a trusted and verifiable audit trail of all system changes. This helps to reduce unplanned work, provides auditable data to simplify IT audit preparation, and supports services quality and security initiatives.

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TRIPWIRE

The Sticky Side Of Tape Disposal

Continued from Page 28

to attempt to resurrect used tapes. For instance, if the media type contains servo tracks such as LTO, 9840, 9940, 3590, 3592, or the like, the length of time needed to overwrite each tape individually is prohibitive and hence expensive. Overwriting the full length of each tape to destroy its readability can sometimes cost more than the used tape is worth at the resale market.

Alternatively, tapes can be degaussed to destroy their entire content (including servo tracks) and crushed or incinerated, but this doesn't offer monetary return to the organization, nor is it environmentally friendly.

According to Clay Teramo, president and founder of the The Data Media Source, a media reclamation company, "Tapes cannot effectively be recycled at the component level. They are either destroyed, with negative environmental consequences, or reused." Teramo feels that the reuse option is most preferable because of virtually no negative environmental impact and the reclaiming of maximum value for the tapes. He adds that the critical decision factor is often security and that the service provider must be able to assure that all tapes are handled properly and data is properly destroyed.

Turn To The Experts

Naturally, tape disposal companies contend that their methods of eradicating media data and then offering to purchase the newly "blanked" tapes from their clients (when they can) is the best alternative because everybody has something to gain. When this approach is feasible, it is the most attractive choice.

Teramo says, "No end of life solution, including doing nothing, is 100% risk free. Keeping tapes past their retention periods is not a good choice. Dumping and/or destroying tapes does not ensure security and is wasteful and costly." Teramo says giving the tapes away with the old equipment is not secure and doesn't get back the maximum value; therefore, it's better to use media reclamation experts who can handle the project, provide security documentation, and pay you real dollars for your tapes.

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Batten Down The IT Hatches

Continued from Page 28

testing can lead to breakage of systems; the larger the patch update, the more likely that something within the environment may fail."

Companies should have test systems available that represent the standard configuration of hardware and software that is found within the environment. Applying the patch to these test systems and monitoring for issues can help technicians find problems before they roll the patch out in production.

Bradley says, "You will not find everything. No matter how much we test in our test networks, you will not find it all. Therefore your goal is not to do the absolute most complete patch testing you can but rather to ensure you have the tools and processes to recover."

Bradley stresses that companies should work to create an environment as standardized as possible. Reducing the variables helps with virtually every facet of patch management. Fewer hardware and software platforms means fewer vulnerabilities to worry about and testing can be done more quickly.

Finding Balance

Reducing patch times has benefits both financially and from a security perspective. The trick is to find the right balance. Delaying patch deployment could expose the network to vulnerability exploits that can be costly and embarrassing. Rushing a patch out too quickly could result in crashed systems or conflicts with critical systems.

There is value in reducing patch times, but the process must take into account an understanding of the systems and their business impact and a thorough risk analysis. Whether you choose to use an automated patch management solution or a patch proxy or revise the patch process to make it more efficient, find the balance between preserving the integrity and availability of the network and expediting the deployment of patches.

The Cost Of Patching

According to a Patchlink white paper titled "The Return on Investment of Automated Patch Management," using a patch management product such as Patchlink's to automate patch deployment represents a significant savings over a manual patch deployment process.

Using theoretical numbers comparable to a small to medium-sized enterprise, the report assumes an environment of 1,000 computers spanning two different operating system platforms. Based on the hypothetical calculations in the report, the automated patch management software represents a savings of greater than 80%, potentially saving tens or hundreds of thousands of dollars in a given year.

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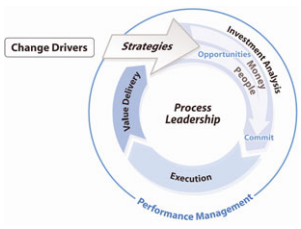

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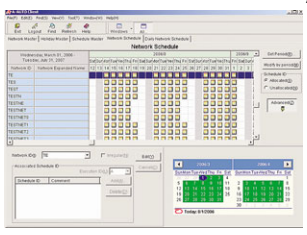

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WHAT'S HAPPENING

Specialists In VoIP Migration

Citel Offers Smart Solutions For Growing Businesses

by John Brandon

• • •

OPERATING A BUSINESS can be exhilarating and challenging at the same time. The exhilaration comes from seeing change and progress as a result of smart decisions. Challenges come when you are playing catch-up with new technology that is still unproven and untested. One plate-shifting change for companies of all sizes is the move to IP telephony. Yet while enterprises can make a capital investment in hardware and server software, smaller companies might not be ready to dispose of old handsets and wiring geared more for data delivery.

Citel Technologies (www.citel.com) is one of the prominent companies in the VoIP migration space. The company addresses a common problem: Smaller companies often have established PBX services with multiple vendors, sometimes at disparate locations. When moving to IP-based telephony, there's a conundrum. Because the data warehousing takes place at a central location, it's often difficult and expensive to implement IP PBX across an entire company.

Hosted VoIP For SMEs

"With an internal solution, the IP PBX used to deliver the service will normally be situated at the same location as the phone users," explains Steve Towlson, the vice president of engineering at Citel. "The IP PBX would be maintained and administered by the user organization. For a hosted solution, the telephony service is provided over a wide-area data network by a carrier or service provider. The application server that is providing the telephony service would be in a location that is remote to the users and may even be in a different country or on a different continent. The service is leased from a provider and is managed by that provider remotely. So a hosted solution reduces upfront cost (no capital outlay) and offers simplified enterprise-wide voice networking because all users within an organization, regardless of geography, can use the same dialing plan, and it also reduces equipment, admin, and maintenance overheads."

Citel, based in Seattle with development labs in Canada and England, provides a hosted VoIP solution that addresses the changing climate in small and medium-sized enterprises. In recent years, VoIP has exploded in business and in the home with vendors such as Avaya leading the charge. One of the most compelling advantages is that VoIP becomes just another managed system on an internal or external server, similar to a business application or email server.

"Small businesses can now choose from a breadth of offerings from multiple IP PBX manufacturers as well as from service providers to obtain a large variety of next-generation features and functionality that were once only available to large enterprises," says Towlson. "In addition, standards-based protocols (e.g. SIP) are opening up a level of standardization and continuity previously not available between disparate vendors. This allows interoperability, which is especially important for growing enterprises that may have a number of distributed locations or who have acquired infrastructure as a result of merger or acquisition."

Because of all these choices, Towlson explains, it's not possible for companies to roll out a VoIP system gradually with both internal and hosted IP services and with connections between systems and support for previously disconnected technologies. For example, in June Citel announced that its SIP Handset Gateway is certified as compliant with Avaya Communication Manager IP telephony software. In May Citel announced compatibility and certification with Sylantro Systems hosted IP services. Citel serves as the "middle man" link between existing PBX systems and enterprise-class solutions from Avaya and Sylantro.

Array Of Choices

"Citel has fine-tuned both our product offering as well as our roadmap to offer enterprises a number of choices when migrating to VoIP, whether utilizing a premise-based IP PBX or hosted IP PBX," says Towlson. "We have also fine-tuned our offering to accommodate the hosted IP service provider community, allowing them to disrupt the traditional PBX buy cycle via their hosted offering. Secondly, we have completed interoperability with other established and emerging SIP-based IP PBX providers, including Pingtel, Zultys, and Metaswitch."

Of course, larger companies may be more interested in making the capital investment in an internal VoIP solution to replace outdated PBX systems. In some cases, hardware and wiring is outdated to the point where the benefits of one network—instead of one for data and one for phone—are compelling enough to warrant an infrastructure overhaul.

"Certainly the concept of a single network for both voice and data, whereby voice simply becomes an application on the data network, is one of the primary benefits—and most business-impacting benefits—of migrating from a traditional TDM PBX to IP," says Towlson. "Flexibility on features, economics, and productivity are well accepted in the SMB community. But the cost of LAN upgrades, new handset infrastructure, business disruption, and retraining are causing delays in the migration. Secondly, there is a significantly lower cost of system administration and maintenance with a software-based VoIP system than with a hardware-based TDM PBX."

Bridging The Gap

One new product is the EXTender IP6000, which serves as an IP-based bridge between PBX systems used in call centers and help desks, or for telecommuters and branch offices, with a central PBX phone system at a corporate office. It helps companies with a distributed workforce to implement VoIP without replacing remote equipment.

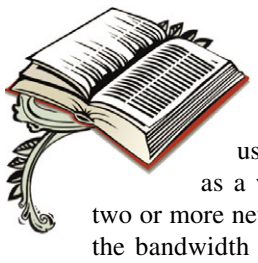
"The EXTender IP6000 is unique in that it allows companies to take a phased approach to IP migration by maintaining their existing PBX infrastructure and associated applications, utilizing IP connectivity for distribution of those applications over a wide-area network," says Towlson. "Then, as the customer builds the business case for a complete migration to either a hosted or premise IP PBX, the IP6000 can remain in service at remote locations, continuing to make productive use of both the existing LAN infrastructure as well as the TDM PBX handsets."

Citel has a corner on the emerging hosted VoIP space, with new certification for VoIP vendors such as Avaya and new migration systems such as the EXTender IP6000. It can help admins in the battle between exciting change and challenging early adoption.

"Small businesses can now choose from a breadth of offerings from multiple IP PBX manufacturers as well as from service providers to obtain a large variety of next-generation features and functionality that were once only available to large enterprises."

- Citel's Steve Towlson

TWO TERMS



RAIN (Redundant Array of Independent Network Interfaces)

What it is: RAIN is a term sometimes used for channel bonding, which is defined as a way for combining the bandwidth from two or more network interfaces into one, thus increasing the bandwidth proportionally. So for instance, channel bonding two NICs with bandwidths of 50Mbps results in a combined bandwidth of 100Mbps. The term RAIN is used because the technique that effectively combines the bandwidth of the two or more network interfaces works in the same manner as the storage technique called RAID.

Why you should care: Channel bonding is a way to increase the available bandwidth for network elements, so it can be a cost effective way to gain increased bandwidth where needed. As with RAID, RAIN can provide fault tolerance and redundancy for applications where reliable network node performance is required.

Related products and manufacturers: Products that support or include channel bonding capabilities include everything from LAN and WLAN access cards to network switches and routers. Manufacturers include Cisco, 3Com, and Juniper Networks.

E-DRM (enterprise digital rights management)

What it is: E-DRM is a version of digital rights management designed to manage and administer the access rights of users within an enterprise. The driver behind E-DRM is to ensure that enterprise intellectual and confidential property, which usually exists in a plethora of electronic forms, is not lost or compromised. For example, an E-DRM system can restrict what users can do with certain documents, such as printing, saving, copying, taking screenshots, or viewing offline.

Why you should care: Electronic document distribution is convenient but can be dangerous. A confidential document could be emailed to the wrong distribution list because of an innocent mistake by an employee. Worse yet, disgruntled employees looking for revenge or a quick buck could purposely manipulate and send confidential documents to unwanted recipients. Electronic documents containing confidential information should be given the same level of security as their paperbound counterparts.

Related products and manufacturers: These include SealedMedia (E-DRM), EMC's recently acquired Authentica (Secure Documents), Meridio (Meridio for Microsoft Office), and Adobe (which recently bought Navisware E-DRM).

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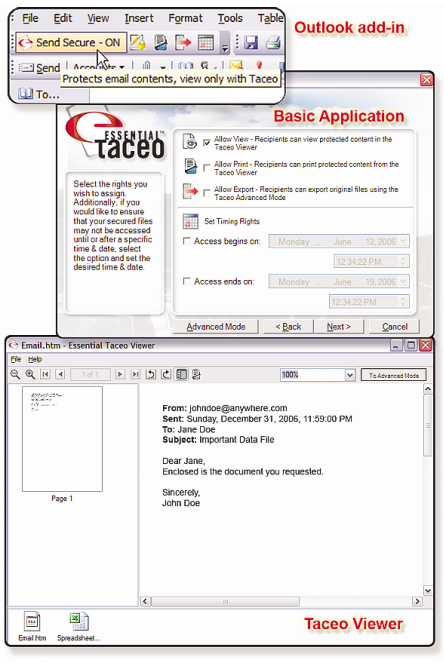

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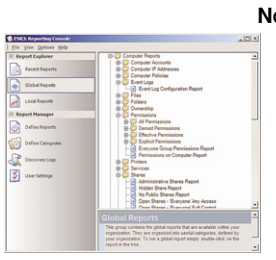

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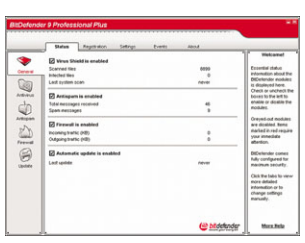

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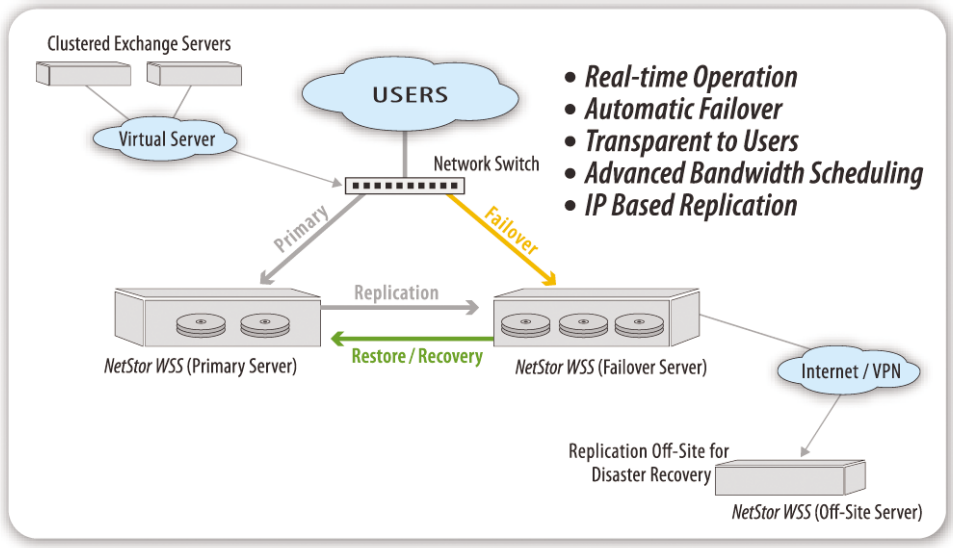

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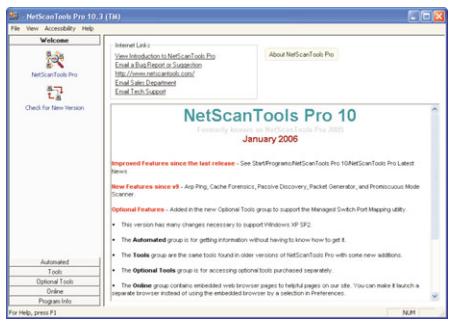

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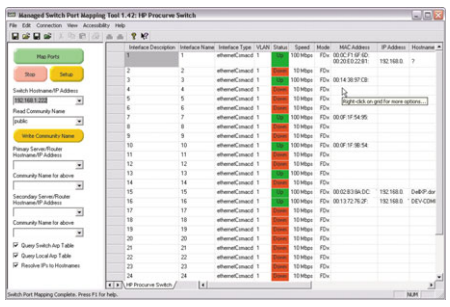

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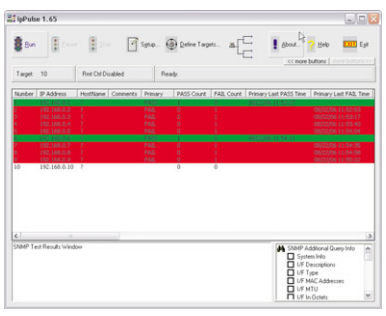

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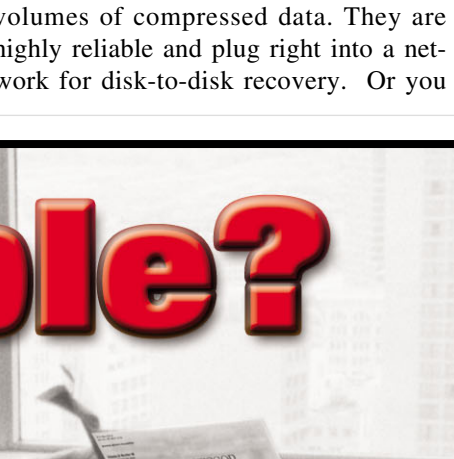

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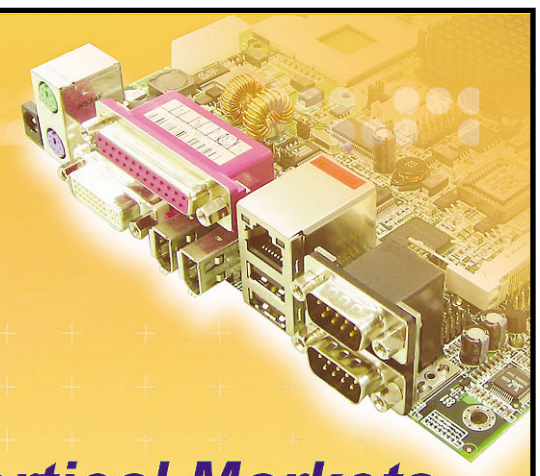

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The AIS panel PC is powered by Intel® Pentium® M processor, integrated with touch-screen technology, and optional with sunlight readable and high brightness solutions. The rugged aluminum enclosure provides unparallel heat transfer capabilities and repels fumes, moisture in harsh conditions

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Features and Benefits

- Wide variety of size of LCD Panel sizes (8.4"to 42")
- Wide variety of mounting designs (Panel Mount, Open Frame, and Chassis)
- Wide variety of optional enhancement features
  - Sunlight readable for out door applications (Transflective Technologies,optional)
  - IP65/NEMA 4 (dust and water proof) for harsh environments
  - High brightness (optional)
  - Wide range of temperature (optional)
  - Wide viewing angle (optional)
- Offering optional local integration services
  - Distribution partners consign components (CPU, memory, storage, and OS)
  - Fast integration service and turn around time (3-5 working days)
  - Direct drop ship services
- High product reliabilities
  - Built in with protective glass for harsh environments
  - Lower systems power consumption for 7/24/365 environments

Product Applications

- HMI Factory Automations
- Data Acquisitions
- Interactive/ POS/ Kiosks
- Military / Marine
- Medical HMI solutions
- Security/Monitoring systems
- Transportations
- Telecommunications
- Video Processing

Systems Specifications

CPU Socket	Socket 479
Processor (optional)	Intel® Pentium M/Celeron M up to 2.0GHZ
Front Side Bus	400 MHz
Chipset	Intel® 855GME/ICH4
Memory (optional)	One 184-pin DDR DIMM Max.1GB
BIOS	Award 4Mbit
VGA Controller	Intel® 855GME integrated
VGA Memory	Shared memory Max. 64MB
LCD Support	24-bit LVDS (dual channel)
Ethernet	Intel® ICH4 integrated+PHY 82565EZ Intel® 82541 GI Gigabit Ethernet
Audio	Built-in audio+AC97 codec
Hard Drive	1 U DMA33/66/100 (2.5")
Super I/O Chipset	W83627HF
Parallel	1 SPP/EPP/ECP port
Serial	2xRS232
Fire Wire	2x1394
USB	2 external port /2 on board pin headers
KB / Mouse Connector	PS/2
Watchdog Timer	256 Levels
Expansion Slots	1xPCI,1xMini PCI internal
Power Adapter	DC In 12V
Operation System (optional)	Win XP or XP Embedded

Environment

Temperature	Operating:0~50℃ Storage:-10℃ ~+60℃
Humidity	Operation:5~95% non condensing Storage:5~95% non condensing
Shock	Operating:15G, 11ms duration
Vibration	Operating: 5 Hz ~ 500 Hz/ 1 Grms/ 3 Axis Packing:: 5 Hz ~ 500 Hz/ 2.16 Grms/ 3 Axis
Warranty	Std: 1-yrs parts/labor-return to depot Opt: 2/3-yrs ext-parts/labor-return to depot
Certification	CE FC RoHS COMPLIANT 2002/95/EC

	8.4"	10.4"	12.1"	15"	17"	19"
Model	PM08B89T-T1	PM10B89T-T1	PM12B89T-T1	PM15B89T-T1	PM17B89T-T1	PM19B89T-T1
System Platform	Intel Pentium M/Celeron M	Intel Pentium M/Celeron M	Intel Pentium M/Celeron M	Intel Pentium M/Celeron M	Intel Pentium M/Celeron M	Intel Pentium M/Celeron M
Industrial TFT LCD Specification						
Viewable Size Image	8.4"	10.4"	12.1"	15"	17"	19"
Active Display Area(mm)	170.4(H)x127.8(V)	211.2(H)x158.4(V)	246.0(H)x184.5(V)	304.1(H)x228.1(V)	337.92(H)x27.34(V)	376.32(H)x301.056(V)
Pixel Pitch(mm)	0.216(H)x0.213(V)	0.264(H)x0.265(V)	0.3075(H)x0.3075(V)	0.297(H)x0.297(V)	0.264(H)x0.264(V)	0.294(H)x0.294(V)
Number of Pixels	800x600	800x600	800x600	1024x768	1280x1024	1280x1024
Contrast Ratio	300:1(typ.)	350:1(typ.)	200:1(typ.)	500:1(typ.)	500:1(typ.)	1000:1(typ.)
Display Color	262144(6bit/colors)	262144(6bit/colors)	262144(6bit/colors)	16.2M(6bits+FRC)	16.2M(6bits+FRC)	16.7M(8bits/color)
Brightness(CD/m^2)	350(typ.)	350(typ.)	300(typ.)	250(typ.)	280(typ.)	250(typ.)
Viewing Angle(CR>=10)	-50~50(H);-30~60(V)	-60~60(H);-60~40(V)	-60~60(H);-55~40V)	-65~65(H);-55~65(V)	-75~75(H);-60~70(V)	-85~85(H);-85~85(V)
Recommended Resolution	800x600	800x600	800x600	1024x768	1280x1024	1280x1024
Power source	AC110~240V,Universal, ±10%	AC110~240V,Universal, ±10%	AC110~240V,Universal, ±10%	AC110~240V,Universal, ±10%	AC110~240V,Universal, ±10%	AC110~240V,Universal, ±10%
Power Consumption	55W typical, normal operation	55W typical, normal operation	55W typical, normal operation	65W typical, normal operation	75W typical, normal operation	80W typical, normal operation
Touch Screen	Fuji 4 wire Resistive/RS232	Fuji 4 wire Resistive/RS232	ELO 5 Wire Resistive/RS232	ELO 5 Wire Resistive/RS232	ELO 5 Wire Resistive/RS232	ELO 5 Wire Resistive/RS232
Warranty	Std: 1-yrs parts/labor-return to depot Opt: 2/3-yrs ext-parts/labor-return to depot	Std: 1-yrs parts/labor-return to depot Opt: 2/3-yrs ext-parts/labor-return to depot	Std: 1-yrs parts/labor-return to depot Opt: 2/3-yrs ext-parts/labor-return to depot	Std: 1-yrs parts/labor-return to depot Opt: 2/3-yrs ext-parts/labor-return to depot	Std: 1-yrs parts/labor-return to depot Opt: 2/3-yrs ext-parts/labor-return to depot	Std: 1-yrs parts/labor-return to depot Opt: 2/3-yrs ext-parts/labor-return to depot
Optional Mechanical Design						
Panel Mount- IP65/NEMA4	IP08B89T-T1	IP10B89T-P1	IP12B89T-M1	IP15B89T-C3	IP17B89T-M1	IP19B89T-T1
Open Frame	OF08B89T-T1	OF10B89T-P1	OF12B89T-M1	OF15B89T-C3	OF17B89T-M1	OF19B89T-T1
Chassis	CH08B89T-T1	CH10B89T-P1	CH12B89T-M1	CH15B89T-C3	CH17B89T-M1	CH19B89T-T1

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